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ABSTRACT

Vocational education serves secondary and postsecondary students, females and minority groups, special populations, and the disadvantaged. To administer vocational education, states use four basic governance structures. Keeping vocational curriculum current with the requirements of work is a continuing process. An effective program is a mix of in-school and on-the-job training and involves employers, labor, and other community leaders. Besides instruction, vocational education offers a variety of ancillary services. It plays a significant role in some states' economic development efforts and is involved with other providers of human resource development services. An infrastructure has evolved to support vocational education. Federal investment is needed to enable vocational education to contribute to the solution of national concerns. The purpose of vocational education legislation should be to enable the Federal Government to cooperate with states in improving quality employment-related education and training that provides individuals with skills that will contribute to economic stability and enhance the economy. The American Vocational Association believes the new legislation should focus on eight major themes: depressed communities, keeping programs current, national concerns, equity, state and national improvement, bridges between vocational education and other human service systems, mismatch between appropriations and expectations, and consumer and homemaking education. (YLB)

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THE VOCATIONAL EDUCATION ENTERPRISE IN 1980

A
STATEMENT
DELIVERED BY

DR. GENE BOTTOMS
EXECUTIVE DIRECTOR
AMERICAN VOCATIONAL ASSOCIATION

BEFORE THE
HOUSE SUBCOMMITTEE ON ELEMENTARY, SECONDARY AND VOCATIONAL EDUCATION

CHAIRMAN
HONORABLE CARL PERKINS

SEPTEMBER 17, 1980

CE039090

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INTRODUCTION

Mr. Chairman and members of the subcommittee,

I am Gene Bottoms, executive director of the American Vocational Association. With me today are Ms. Jean Hanson, director of the Pine to Prairie Cooperative Vocational Center, Red Lake Falls, Minnesota and president-elect of the American Vocational Association and Dr. George Copa, professor and director of the Minnesota Research and Development Center for Vocational Education in the Department of Vocational and Technical Education at the University of Minnesota.

My remarks today will focus on some of the key elements of the vocational education enterprise in 1980. As you begin your deliberations leading to reauthorization of the Vocational Education Act it is important that several facts about vocational education be clearly in focus. The document goes into more detail on these points, but let me highlight some critical facts which deserve your special attention.

Vocational education is a system that serves people from all social and economic levels of our society. Although its focus is on service to all citizens, it serves a large share of disadvantaged and minority students.

There is not one central system of governance for vocational education. There are at least four state structures and even more local patterns of governance and administration.

Vocational education is a highly decentralized system. It is offered in a number of types of institutions, including general and comprehensive high schools, area vocational centers and schools, vocational high schools, community colleges, technical institutes, and specialized noncollegiate postsecondary schools. It offers secondary, postsecondary and adult programs.

The mission of vocational education--to prepare people for work--differs from that of the rest of education. This leads to some natural tensions between vocational education and other segments of the education community. The vocational education instructional program includes classroom instruction, which is based on teaching competencies that will be needed in the workplace, the use of the community to provide work-related learning opportunities and involvement with student organizations.

State and local conditions dictate the pattern of vocational education that is followed in a specific area. Close involvement with business, industry and labor help determine these patterns.

Vocational education is only one part of a much larger human resource development system. It has established a number of connections with these other delivery systems, including CETA programs, correctional institutions, the military, vocational rehabilitation agencies, labor unions and other governmental agencies.

State objectives for vocational education often go beyond national objectives. One of the most notable examples of this fact are the economic development programs which are now an important part of the vocational education programs in 42 states. These programs are being carried out with very little federal support.

Vocatonal education programs are undergirded by an extensive support system which includes: Curriculum development and dissemination, personnel development, occupational information services, record-keeping and statistical services and research and development activities.

There are many perceptions of vocational education. However, public opinion is overwhelmingly favorable. Parents and students questioned in national surveys have called for greater emphasis on vocational education in school programs.

As federal expectations have increased, however, federal support has not kept pace. From 1972 to 1979 the federal per student support of vocational education has dropped from $32 to $16 per student in constant dollars, yet the demands being placed on vocational education in return for these federal dollars have increased significantly.

During the months ahead, we will be discussing with you in detail our proposed agenda for the Eighties. However, let me note that the framework of what will be our recommendations is outlined in the summary section of our Testimony.

WHO DO WE SERVE?

Overview

Public vocational education today serves almost 17 million Americans. The students are a cross section of society. Of this number approximately sixty percent are in secondary programs with the balance in postsecondary and adult programs.

These are facts verified by the National Center for Education Statistics. On a human level, however, who are these students?

They are...

...Maria Martinez, the mother of 17 children who last June went through her first graduation, receiving a certificate in cashiering from the Maricopa County Skills Center in Phoenix, Arizona.

...The nine recent graduates of Rock Terrace High School in Washington, D.C., a public vocational education high school for the retarded and multiple handicapped, who now have a variety of jobs and the chance for a meaningful life.

...The 1500 displaced homemakers who found a direction for their lives in group sessions and workshops at the Waukesha County Technical Institute in Pewaukee, Wisc. last year.

...The 105,000 adults who were enrolled in outreach programs offered by the Milwaukee Area Technical College.

...The 12,500 disadvantaged youth participating in the Coordinated Vocational Academic Education Program in Georgia.

...and many more.

Statistics show that vocational education programs are available in schools attended by more than 98 percent of all high school seniors with between 86-90

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*Figures cited throughout this chapter are from the National Center for Edcuation Statistics unless otherwise noted.

percent attending schools with a full range of programs. However, these figures are misleading if used as a basis for determining that no additional programs are needed. Other data presented in this document will show that there is a serious capacity shortfall in programs in many areas. In New York City alone, where programs are widely available, approximately 12,000 students who applied to vocational schools in 1979 had to be turned away because of a lack of space.

In a membership survey conducted by the American Vocational Association (AVA) in 1979, more than half of the respondents indicated that at least some students had to be turned away from their programs because of space, equipment or teacher shortages, as shown on the chart below.

AVA MEMBERSHIP SURVEY

STUDENTS TURNED AWAY BECAUSE OF FACILITY LIMITATIONS

PROBLEM	NONE	FEW	SOME	MANY	NO INFORMATION
Not enough room	38.4%	15.1%	18.1%	12.4%	15.9%
Not enough qualified teachers	49.4%	12.8%	11.0%	7.1%	19.6%
Not enough equipment	41.1%	15.4%	14.5%	10.6%	18.5%
Not enough work sites	42.1%	16.1%	13.4%	9.6%	18.7%

Looking closer at vocational education students it is clear that although vocational education is a program open to all students its participants come more heavily from families where the father's educational attainment is low. While almost 30 percent (29.1) of academic students reported that their father had completed college or received additional training, less than seven percent (6.4) of vocational-technical students identified their father's education at that level.

At the lower end of the educational ladder, 42.4 percent of the vocational students reported that their fathers had not completed high school. Only 19.4 percent of the academic students reported that their fathers had not completed high school.

Vocational education students also had scores averaging from one-half to one standard deviation lower than their peers in academic programs.

Postsecondary Students

While most secondary vocational students are in the traditional age group, between 14 and 19-years-old, postsecondary programs are serving more adults. Almost a fourth of all students in public noncollegiate postsecondary schools were over 30. Another interesting fact about these students is that almost a fourth of them report some prior college enrollment and more than five percent have already received associate or bachelor of arts degrees.

In addition to adults in postsecondary programs, vocational education enrolls more than four million adults in adult programs, which may be at either the secondary or postsecondary level.

Meeting the Needs of Target Groups

Since the 1976 amendments to the Vocational Education Act, considerable national attention has been focused on the progress vocational education is making in widening opportunities for females and for members of racial minority groups. In 1978 just over 50 percent, or 8.4 million, of all vocational students were women. Twenty-three percent, or 3.8 million, were members of minority groups.

Findings show that traditional occupational patterns for the sexes still persist. Yet progress had been made. Between 1972 and 1978 there was a considerable shift in the percentage of women who were enrolled in traditional programs. In 1972, 75 percent of all women were in such programs. In 1978 only 52 percent of the women enrolled in vocational education were in these traditional programs.

The shift so far, however, has been more toward mixed programs (those programs where the representation of women in 1972 was between 25-75 percent) than toward non-traditional programs. In 1972, seven percent of the women students were enrolled in non-traditional training. By 1978, ten percent were in these courses. In numbers, women students increased 296,000 in non-traditional programs, 960,00 in mixed programs and 543,000 in traditional programs.

In the areas where males have the great majority of enrollments, the percentage growth of female enrollments has been greatest in Agriculture (the smallest program area) and the least in Trade and Industrial Education (the largest program area).

In a recent study of the progress of vocational education in expanding enrollments in non-traditional occupations, Sue Berryman of the Rand Corporation concluded that other factors such as IQ, race and scholastic aptitude have a considerable effect on the tendency of women to enroll in nontraditional occupations. She found that women in nontraditional occupations in the Army were those with high IQ, white and with aptitude scores relating to the occupational field. Resistance to nontraditional occupations rose as IQ and socio-economic level dropped. It was also higher among members of minoirty groups, she concluded.

Minority Enrollments

Enrollment of minority students in vocational education compares favorably with estimates of their representation in the total population. However, other findings show that this representation is distributed disproportionately in the three traditionally female areas and in trade and industrial education. Efforts are required to enorll a greater proportion of minorities in both agriculture and technical areas.

Yet this problem is not unique to vocational education. Studies have shown that minority students in higher education have a tendency to major in the social sciences, education and business rather than in physics or biological sciences or engineering. The problem therefore seems to deal more with social orientation and a tendency to avoid certain areas rather than with any overt action by vocational education to channel these students into certain fields. Actions are needed however to overcome this apparent reluctance to enter these programs.

Special Populations

At present the enrollment of both handicapped students and students of limited English speaking ability represent less than three percent of all vocational education enrollments. Area vocational centers enroll the highest proportion of handicapped students while comprehensive and vocational high schools are slighly ahead of other institutions in serving limited English proficient students.

Data which show that an estimated 6.5 percent of all students between the ages of 14 and 25 are handicapped suggest that vocational education is not serving its proportionate share of that population. However, some handicapped students may not be counted in national statistics because they are being served in regular classrooms without requiring special services.

Members of the state vocational education staff in Colorado did their own survey of the number of handicapped students being served and found that there were more than 2500 more than were officially reported. Their data showed that for FY 79 the state actually served 3350 handicapped students but the number reported was only 739.

Disadvantaged

The federal government's definition of disadvantaged students is as follows:

> The term 'disadvantaged' means persons (other than handicapped persons) who have academic or economic handicaps and who require special services and assistance in order to enable them to succeed in vocational education programs, under criteria developed by the Commissioner based on objective standards and the most recent available data.

According to NCES figures, vocational education served almost two million disadvantaged students in 1978. However, findings from an analysis of data from "The National Longitudinal Study of the Class of 1972" by William Conroy of the University of Lowell suggest that a much larger proportion of vocational education students might be defined as disadvantaged. Conroy found that 50 percent of all seniors enrolled in vocational education programs in 1972 had low scholastic ability.

VOCATIONAL EDUCATION GOVERNANCE*

Since the Vocational Education Act of 1963 (P.L. 88-210) called for the creation of a single state agency to administer vocational education, states and federal government have struggled with the question of complying with the sole state agency governance mandate.

From the beginning of federal involvement in vocational education under the Smith-Hughes Act of 1917 (P.L 64-347), states and the federal government have been partners, providing vocational opportunities for the people of the nation. This relationship has existed as a unique arrangement between the states, which have constitutional responsibility for providing public education, and the federal government, which serves as a catalytic agent for improving vocational education.

A state can organize its educational governance by a variety of administrative structures. Typically, separate state agencies have been established to administer secondary and higher education. In recent years, two other agencies have been added in many states for community and junior colleges and vocational education. In those states with only an agency for elementary and secondary and another for higher education, authority for vocational education, an integral part of both systems, is divided. State efforts to reconcile the sole state agency mandate with the dual agency system of education have brought about various types of governance structures for vocational education.

Four Governance Structures

Although there are many differences among states in how they administer vocational education, the governance structures can be classified into four types. The four structures are: (1) one agency for all levels of education; (2) an agency for elementary and secondary schools, including vocational education, and a state coordinating or governing agency for higher education; (3) an agency for elementary and secondary schools, an agency for vocational education, and a state coordinating or governing agency for higher education; and (4) an agency for elementary and secondary schools, including vocational education and governing boards for individual institutions of higher education, with no state wide governing agency.

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*NOTE: All data, findings, and conclusions on state governance in this section come from the National Documentary Study of the State Level Governance of Vocational Education, conducted by Dr. Don K. Gentry, Executive Officer and State Director of Vocational Education, Indiana State Board of Vocational and Technical Education, in cooperation with the National Association of State Directors of Vocational Education, 1979.

A state-by-state classification according to these four structures is shown on the following page.

The typical structure is the assignment of the vocational education responsibility to the state educational agency primarily responsible for elementary and secondary education. The dominance of this structure appears to be historically related to the development of educational management. All state constitutions provide for the creation of a state common school system. Since the vocational education programs were operated as a part of the public or common school system in most states until 1963, the majority of states have maintained the governance of vocational education in the state department for public education. Yet caution is advised in drawing conclusions about the effectiveness or efficiency of the state structures based on frequency counts.

Although vocational education had been primarily within the domain of secondary education, the Vocational Education Act of 1963 mandated other program thrusts. The concept of postsecondary vocational education was introduced and brought about a new level of programs and activities to be administered. With the expansion of postsecondary systems, the question of governance by state boards primarily responsible for elementary and secondary education became critical.

CLASSIFICATION OF STATES BY GOVERNANCE STRUCTURE TYPE

Type A: States With One Agency For All Levels Of Education, n=6

Florida
Idaho
Michigan
New York
Pennsylvania
Rhode Island

Type B: States With An Agency For Elementary And Secondary Schools, Including Vocational Education And A State Coordinating Or Governing Agency For Higher Education, n=31

Alabama
Alaska
Arizona
Arkansas
California
Connecticut
Delaware
Georgia
Illinois
Iowa
Kansas
Louisiana
Maine
Maryland
Massachusetts
Minnesota
Mississippi
Missouri
Montana
Nevada
New Hampshire
New Jersey
North Carolina
Ohio
Oregon
Tennessee
Texas
Utah
Virginia
West Virginia
Wyoming

Type C: States With An Agency For Elementary And Secondary Schools, An Agency For Vocational Education, And A State Coordinating Or Governing Agency For Higher Education, n=8

Colorado
Indiana
Kentucky
North Dakota
Oklahoma
South Dakota
Washington
Wisconsin

Type D: States With An Agency For Elementary And Secondary Schools Including Vocational Education And Governing Boards For Individual Institutions Of Higher Education With No Statewide Governing Agency, n=3

Nebraska
New Mexico
Vermont

(cont)

Type E: States With Other Governing Structure Types As Specified, n=2	
Hawaii	A State Department Of Education, A Board Of Regents For University System Including All Vocational Education
South Carolina	A State Board Of Education For Elementary And Secondary Education Which Is Responsible For Vocational Education At The Secondary And Adult Levels, A Postsecondary And Technical Education Board Which Is Responsible For Postsecondary Vocational Education, And A Higher Education Board

The Education Amendments of 1976 continued the sole state agency concept, defining the board in terms similar to previous vocational education statutes. However, the Act greatly expanded the required participation of certain agencies, councils and individuals in the state planning process. Additionally, the Act outlined the major responsibilities and granted authority to the state board. The Act permitted delegation of other responsibilities involving administration, operation, or supervision to one or more appropriate state agencies.

Many Organizational Patterns for State Agencies

The organizational patterns for the agencies also vary greatly. The method of selection of the state board, board membership, length of terms, position held by person serving as the executive officer, selection of the state director, frequency of board meetings, and matters considered at board meetings all have an impact on the governance of vocational education. The organizational structures of states agencies is shown in the table on the following page.

Thirty-six of the fifty state boards of vocational education are appointed by governors, thirteen are elected by the citizens, and one board is elected by the state legislature. State boards vary in size from three to twenty-four members. Thirty-six states have six to eleven board members, and ten states have twelve to seventeen members. Forty of the boards serve four- to six-year terms, one board three-year terms, and nine boards serve seven or more year terms.

The chief state school officer serves as executive officer of the state board in forty states, the state director of vocational education serves in nine states, and the president of the University system in one state.

Thirty-five state directors are selected by the chief state school officer and thirteen by the state board.

Thirty-six of the state boards meet monthly and nine bi-monthly. Ten boards consider only vocational education matters at their meetings and

ORGANIZATIONAL STRUCTURE OF STATE AGENCIES FOR VOCATIONAL EDUCATION IN THE 50 STATES

April, 1980

LEVELS OF ADMINISTRATION	STATES	
STATE BOARD FOR VOCATIONAL EDUCATION STATE DIRECTOR OF VOCATIONAL EDUCATION	Colorado Hawaii* Indiana North Dakota	Oklahoma South Dakota Washington Wisconsin
STATE BOARD OF EDUCATION ACTING AS STATE BOARD FOR VOCATIONAL EDUCATION STATE DIRECTOR OF VOCATIONAL EDUCATION	Idaho Montana*	
STATE BOARD OF EDUCATION ACTING AS STATE BOARD FOR VOCATIONAL EDUCATION STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION STATE DIRECTOR OF VOCATIONAL EDUCATION	Alabama Arkansas Connecticut* Georgia*	Minnesota Mississippi* New Jersey* Tennessee
STATE BOARD OF EDUCATION ACTING AS STATE BOARD FOR VOCATIONAL EDUCATION STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION DEPUTY STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION STATE DIRECTOR OF VOCATIONAL EDUCATION	Alaska Arizona California* Florida Illinois Kansas Louisiana Maine Maryland Missouri	Nebraska New Hampshire* Ohio Oregon South Carolina Texas Utah Vermont Virginia West Virginia
STATE BOARD OF EDUCATION ACTING AS STATE BOARD FOR VOCATIONAL EDUCATION STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION DEPUTY STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION ASSOCIATE STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION STATE DIRECTOR OF VOCATIONAL EDUCATION	Delaware** Iowa Kentucky Massachusetts** Michigan New Mexico	New York* North Carolina Pennsylvania Rhode Island Wyoming*
STATE BOARD OF EDUCATION ACTING AS STATE BOARD FOR VOCATIONAL EDUCATION STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION DEPUTY STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION ASSOCIATE STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION ASSISTANT STATE SUPERINTENDENT/COMMISSIONER OF EDUCATION STATE DIRECTOR OF VOCATIONAL EDUCATION	Nevada	

*Has eliminated one level of administration within last five years.

**Has added one level of administration within last five years.

thirty-seven consider other educational matters as well as vocational education.

Authority Is Often Divided

Another governance issue is the authority of the state board to perform the responsibilities necessary to comply with federal law. These administrative functions include state planning, policy making, program approval, distribution, and accountability for federal funds and evaluation.

Many state laws conflict with federal expectations. Therefore, the responsibility to administer vocational education is assigned to the state board created or designed for vocational education, but the legal authority through state law may be vested with another agency. This is particularly true for postsecondary program authority with those state boards that have primary responsibility for elementary and secondary education.

Vocational education cuts across educational levels and so do many of the institutions that deliver it at the local level. The reauthorized vocational education legislation should provide the stimulus necessary for states to make the single state board for vocational education a viable agency for performing the functions assigned.

SUMMARY

1. The vocational education governance system is not a true system but is a very complex, diversified enterprise which differs from state to state. Four basic governance structures are used by the states to administer vocational education at the state level. A wide difference in organization within the structures is also indicated.

2. The administration of vocational education has developed as a sub-system of a larger educational administrative structure. The large number of states administering vocational education under the state board primarily responsible

for elementary and secondary education, with few indications of structural involvement of educational agencies (i.e. Commission for Higher Education and State Boards for Community and Junior Colleges) that have developed after the original designation of the State Board, substantiate this conclusion.

3. Authority and responsibility to govern all vocational education, or in many cases one level of vocational education, are not always assigned to the same agency.

4. The discrepancy between federal mandated responsibilities and authority granted to the state board by state law result in a high rate of administrative performance for the level of responsibility of the state board and low rate for those non-authority areas.

5. Chief state school officers and state boards primarily responsible for the governance of elementary and secondary education are the major administrators of vocational education at the state level.

6. State directors of vocational education are primarily responsible to chief state school officers.

THE ARRAY OF PROGRAMS

To meet the variety of demands placed upon it, vocational education has developed an extensive array of programs. To understand vocational education, one must first note that it is not a discrete, definable single program that can be examined singularly. Quite to the contrary, vocational education is a responsive and rapidly developing dynamic system that is evolving at a tremendous rate.

Today vocational education includes more than 400 instructional offerings usually grouped under seven major occupational program areas preparing youth and adults for hundreds of occupations.

Many of the critics of vocational education believe and state that it is designed to prepare people for a particular, and usually one claimed to be quite restrictive, job with a particular employer. Others charge that vocational education fits people into a particular occupation.

While both of these objectives are accurately attributed to vocational education, they are not the whole truth. In fact, vocational education programs address a variety of goals -- goals that are affected by where the programs are offered, to whom, and by the demands of the environment. Furthermore, vocational education is an important and integral developmental component, not a welfare or an income transfer component, or our nation's overall human resource development thrust. As such, vocational education is preventative in nature.

Clearly then, vocational education must not be viewed as "mere rote manipulative training in the dark and noisy areas of the school" but rather as an in-place, on-line set of public education programs forming a nationwide and institutionally-based training, education and support delivery system. When correctly managed and applied, it offers a powerful tool that can contribute significantly to the pressing national concerns of productivity employment, job creation, re-industrialization and long-term economic planning.

What is Vocational Education

Essentially, vocational education provides learning experiences that further the occupational awareness, exploration, preparation and specialized needs of its clients, typically aged 14-60. As such, it may well be viewed as offering a continuum of programs that range from ones with the most broad occupational reference to very customized job and/or employer specific ones. Specifically vocational education encompasses:

1. Pre-Vocational/Guidance. Pre-vocational and guidance activities are designed to increase career and self-awareness and educational decision-making. Offering introductory occupational knowledge and general information about skills useful in a variety of work settings is also important. While such programs are often provided during the early teens, it is not unusual to have similar programs offered to other age levels. Examples of programs: Occupational information courses, industrial arts, career exploration programs, occupational guidance, occupational assessment, job counseling for adults.

2. Pre-vocational Basic Skills Programs. These programs provide basic mathematics, reading and writing skills prerequisite to enrollment in occupational training or for success in work-related endeavors. Examples of programs: Reading, or math classes for CETA clients, general educational development (GED) programs, functional/occupational literacy courses.

3. Related Instruction. Such instruction seeks to increase knowledge and skills in occupational content and occupationally related science, mathematics and communication skills for a specific job, occupation or groups of occupations. Such

programs are regularly provided to secondary, postsecondary and adult clients. Examples: Blue print reading, apprentice mathematics training, physics for technical students.

4. Employability Preparation. These activities are designed to increase work discipline and generic work skills as they apply to any occupation. These types of activities are critical for youth and adults lacking the interpersonal or motivational skills to pursue training or immediate employment. Examples: Occupational work adjustment, integrated work experience and career exploration programs, work experience programs, coordinated vocational and academic education programs.

5. Occupational Group Preparation. Targeted programs increase student employability for a group of occupations which are related and that typically occur in a common setting. These occupations all draw from a common knowledge base and they use similar tools, materials and processes. Most often these programs are offered at the secondary level in a comprehensive high school. Examples: Construction and metal trades, graphic arts, agri-business, office operations.

6. Occupational Area Preparation. Targeted programs increase student employability in a particular set of occupations. These programs, however, are not designed for a particular employer. Such programs are typically offered at secondary, postsecondary and adult levels. Examples: Licensed practical nurse, machine shop, automotive mechanics, tool and die maker.

7. Job Specific Programs. These programs increase student employability in a specific job but are not designed for a particular employer. Usually they are provided to individuals of all ages who seek only those knowledges and skills needed for a specific job. Examples: Typist, key puncher, front end alignment specialist lathe operators.

8. Customized Job Specific Programs. These programs increase client employability for a particular job with a given employer. Example: Training people for specified job classifications and to use a certain type of equipment, training personnel for a new company moving into town, updating existing workers for an existing company to use new equipment and/or production technology, adult farmer program.

In examining each of these types of programs, it is important to understand that vocational education addresses more than just a set of conditioned muscular responses. To be sure, skilled movements are often a significant and essential dimension of vocational expertise, but vocational education is much more interested in developing people with an integrated and appropriately balanced fusion of knowledge, good attitudes and skill. As such, vocational education makes its maximum contribution to the employability of its clients.

There is yet another dimension of vocational education that needs to be recognized. Because of the commitment to our country's needs, vocational education also provides a host of customized services that cannot be conveniently classified. Typically, on a local and/or regional basis, vocational education provides carefully planned, and specifically tailored services to industry, special needs populations, and to depressed communities. Entrepreneurship training, technological upgrading courses, bilingual instructional materials, and plant set-up training are examples of such customized services. Similarly management and supervisory training to increase the capability of owner/operators frequently helps small business.

Vocational Education's Objectives

More specifically, with vocational education's activity ranging from awareness, through exploration, preparation, upgrading and retraining, what then are the specific objectives that are addressed? Significant objectives are to:

- Support and strengthen the relationship between education and work,

- Address the national concerns for improved productivity in the workplace.

- Maintain the capability to respond quickly to short- and long-term demands for strengthening national defense.

- Use employment-related education and training for attracting and creating jobs in economically depressed areas.

- Develop an education and training response for conserving, generating, converting and utilizing energy.

- Focus on the goal of full employment, including self-employment, by addressing the need for a qualified and responsive supply of labor.

- Make a high quality of employment-related education and training available, along with the freedom to choose such education and training, to persons of secondary school age or above, in all communities who are in school, or who have interrupted, discontinued or completed formal education and need preparation to enter the labor market; and to those who have partially or fully entered the work force, but need to update, upgrade or alter work-related skills and who are served by secondary schools, postsecondary institutions, adult programs and work-site training.

- Initiate, extend, keep current and improve the scope and quality of employment-related education and training.

- Strengthen the capacity of communities and institutions to provide excellence in employment-related education and training.

- Conduct programs that will by their excellence overcome all forms of discrimination of disadvantage related to sex, race, age, national origin, physical or mental handicap, income and geographic location in employment-related education.

- Provide necessary special services including, but not limited to, guidance and counseling and basic education skills; and cooperate with appropriate agencies for other needed services, such as health care and financial aid, for those who need such services to have access to and make reasonable progress in the pursuit of excellence in employment-related education and training, so that individuals and groups will have access to and the freedom to choose programs that will prepare them for projected or anticipated work roles which are suited to their needs, interests, abilities and the conditions of the employment market.

- Upgrade worker skills to facilitate career progression and/or job retention.
- Prepare persons for advanced occupational training.
- Assist persons in making more informed and meaningful occupational choices.
- Organize and marshall resources to assist in community development and industrial revitalization.

Furthermore, contrary to what many have come to believe of education, vocational education has not partitioned these objectives by designating each with age specific eligibility ranges. Rather, these objectives are addressed by a variety of programs, offered by a variety of institutions, at a variety of levels, to a variety of clients, depending on interest and need!

To review them, the intent of vocational education is that

> "All persons of all ages in all communities, those in high school, those who have completed, or discontinued their formal education and are preparing to enter the labor market, those who have already entered the labor market but who need to upgrade their skills, or learn new ones, those with special educational handicaps, and those in postsecondary schools, will have ready access to vocational training or retraining which is of high quality, which is realistic in light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training (P.L. 94-482, October 12, 1976, STAT, 2169)."

The Multifaceted Nature of Vocational Instruction

Vocational education is delivered primarily through the seven occupational areas of:

- Agriculture Education

- Business and Office Education
- Health Occupations Education
- Home Economics Education
- Marketing and Distributive Education
- Technical Education
- Trade and Industrial Education

Additionally, Industrial Arts provides important pre-vocational awareness and exploratory insights and vocational guidance supports the student's entire development through constructive assessment, counsel and decision-making.

It is a hallmark of vocational education that each of its instructional areas has direct relevance to an important segment of our nation's economy. As such, the more established instructional areas are constantly being augmented with a variety of curricula that reflect vitally needed and new and emerging occupations such as Medical Emergency Technology and Fire and Safety Technology (see chart on the following page). Furthermore, in terms of its offerings, vocational education is responsive to the nation's energy goals. Vocational education students are being trained in coal mining, petroleum, and geothermal technology; nuclear energy; solar energy, laser optics, and energy conservation.

Similarly, an analysis of vocational education enrollments between 1972 and 1977 shows that when the labor market demand for more traditional instructional areas justifies it, they too expand as shown below.

ENROLLMENT INCREASES IN TRADITIONAL OCCUPATIONAL AREAS

Program Area	% Increase 1972-1977
Health Occupations	50.8%
Office Occupations	39.1%
-- Data Processing, Communication and Storage Occupations (34.5%)	
Technical Occupations	30.4%

VOCATIONAL EDUCATION ENROLLMENTS IN NEW AND EMERGING OCCUPATIONS

Occupational Area	FY 1972	FY 1977	FY 1978	% Increase
Surgical Technology	-	3,522	3,895	-
Occupational Therapy	-	2,892	2,531	-
Nuclear Medical Technology	-	400	343	-
Ophthalmic Occupations	-	1,657	2,758	-
Environmental Health	-	5,192	4,049	-
Medical Emergency Technology	-	70,514	88,092	-
Mortuary Science	-	1,788	1,513	-
Fire & Safety Technology	8,826	28,714	29,147	230.24%
Electronic Occupations	97,936	147,267	146,294	49.38%
Law Enforcement Training	77,801	109,535	104,194	39.29%

Source: U.S. Office of Education

It should also be noted that when occupational requirements permit, these opportunities are available to all age groups, and they are typically offered at both secondary and postsecondary levels.

Important Support Services

Of course, instruction is only part of the picture. Much of the success of vocational education is due to the development of significant support services such as assessment and counseling techniques, remediation and individualized instruction, and prescriptive materials such as bilingual laboratory guides. A later section of this testimony will specifically address such support servcies.

INSTITUTIONS THAT DELIVER VOCATIONAL EDUCATION

"Vocational education is offered in separate specialized institutions and federal resources are used primarily to support such institutions" is an often expressed Washington view about the institutions that provide vocational education to the nation's citizens. Contrary to that belief, the majority of the nation's enrollment in vocational education is in comprehensive institutions under the same governance structure as the rest of education at the local level.

There are eight types of institutions in which vocational education programs are offered. These are described in the chart on the following page. They can be divided into three basic groups: (1) Comprehensive institutions in which vocational education offerings make up one department (general high schools, comprehensive high school, community colleges);(2) comprehensive vocational education centers or schools that offer a broad range of vocational programs (vocational high schools, area vocational schools and technical institutes; (3) specialized vocational schools that concentrate in a given occupational area such as business and office education.

Six of the eight institution types mentioned come under the definition of area vocational schools in the Vocational Education Act. The exceptions are the general high school and the specialized vocational school. The area vocational school concept emerged in federal legislation as a means to provide youth and adults from rural and small towns with access to a variety of vocational education offerings.

Throughout the nation, many secondary vocational education laboratories are utilized after school and in the evening for long-term and short-term adult progams. A few states serve both adults and secondary youth at the same time in the same program. Likewise, postsecondary laboratories are often used to serve secondary youth. Vocational education programs do not fit neatly into educational molds, but, in fact, cut across education and age levels.

INSTITUTIONS OFFERING VOCATIONAL EDUCATION[1]

Institutional Type	Definition	Number of Schools
General High School	A general high school is one that offers fewer than five programs of vocational education. Such schools offer primarily the academic and general curriculum.	10,851
Comprehensive High School	A comprehensive high school is a general high school offering programs in both vocational and general academic subjects, but in which the majority of the students are not enrolled in programs of vocational education. Such schools have shop, laboratory or classroom facilities for five or more different programs in vocational education.	4,878
Vocational High School	A vocational high school is a specialized secondary school that offers a full-time program of study in both academic and vocational subjects and in which all or a majority of the students are enrolled in vocational education programs.	225
Area Vocational Center	An area vocational center is a shared-time facility that provides instruction in vocational education only to students from throughout a school system or region. Students attending an area vocational center receive the academic portion of their education program in regular high school and other institutions.	1,395
Community College	A community college is a two-year postsecondary degree granting institution offering a comprehensive program of instruction in both general and vocational-technical education and offering a transfer program to higher education institutions.	720
Technical Institute	A technical institution is a two-year postsecondary degree granting institution offering instruction primarily in vocational and technical education and whose educational programs are pri-	162

	marily in vocational and technical education and whose educational programs are primarily directed toward immediate job placement -- although provisions may exist for the transfer of credit to institutions of higher education.	
Area Vocational School	An area vocational school is a post secondary non-degree granting institution (or an institution offering a degree that is not recognized as a collegiate degree by the appropriate regional accrediting commission) offering instruction in vocational and technical education only, and whose educational programs are terminal in nature. Such institutions generally have no provision for the development of transfer programs to either two-year institutions or to four-year institutions of higher education.	504
Specialized Noncollegiate Postsecondary School	Specialized vocational schools offer training in one or two occupational areas such as business and commercial, flight schools, cosmetology/barber schools etc.	308

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[1] While many four-year colleges and universities also offer two-year programs in vocational-technical education, these institutions were excluded from this study unless they operated a designated area vocational education school.

Other Delivery Systems

It is common knowledge that the formal education system is but one of many approaches to providing vocational education to the citizenry. Private and proprietary schools, direct federally funded skills centers, the Job Corps, correctional institutions, hospitals, industry, the military, governmental service units, and individuals are all engaged in offering vocational education in some fashion. Reference to vocational education's involvement with other agencies is made in several places throughout this document, but it is important to understand the diverse array of vocational education services provided in this nation as the topic of vocational education institutions is addressed.

Which Institutions Get The Federal Dollars?

An often expressed Washington view is that most federal appropriations for vocational education go to the area vocational school or center. Data from the FY 1979 Accountability Reports of four states shows that at least for these states, that is not the case. The general and comprehensive high schools are the major benefactors of federal vocational funds in those states.

In Ohio, 49 vocational school centers received 24 percent of the federal dollars while 34 community colleges and four-year institutions received 30 percent. In Kentucky, 83 vocational school centers, many of which are postsecondary, received 45 percent of the federal dollars while community and four-year institutions received 11 percent. In Oklahoma, 21 vocational centers received 42 percent of the federal dollars while 30 community colleges and four-year institutions received 23 percent of the funds. In New Jersey, 35 vocational centers received 32 percent of the federal dollars while 14 community colleges received 19 percent.

Time prevented a complete nationwide analysis. This data suggests that federal investments support vocational education programs in all types of institutions and that judgments regarding equity in distribution of federal dollars for any given type of institution cannot be made without further knowledge about the level of state and local support going to each type of institution.

SAMPLE ANALYSIS
INSTITUTION RECIPIENTS OF FEDERAL VOCATIONAL EDUCATION MONIES, FY 1979

INSTITUTION TYPE

		LEA				AVC/JVC				JC/CC				Four Yr. Institution			
	TDE*	Overall $	TDE	$ Each	n	Overall $	TDE	$ Each	n	Overall $	TDE	$ Each	n	Overall $	TDE	$ Each	n
OH	$29,205,000	13,618,000	47%	21,824	624	6,913,000	24%	141,082	49	4,688,000	16%	203,826	23	3,986,000	14%	362,364	11
KY	10,712,000	4,347,000	41%	24,150	180	4,804,000	45%	57,880	83	564,000	5%	44,385	13	595,000	6%	85,000	7
OK	5,960,000	1,761,000	35%	4,337	406	2,104,000	42%	100,190	21	867,000	17%	48,167	18	328,000	6%	27,340	12
NJ	11,135,000	5,473,000	49%	19,546	280	3,546,100	32%	101,314	35	2,116,000	19%	151,143	14	1	1	1	1

*Total Direct Institutional Expenditure (TDE).

1. Not reported in available date.
2. Data from 1979 (NJ, 1980) Accountability reports.
3. Note: Institution categories do not necessarily reflect program level. In many states, adult programs are also contained in AVC/JVC and LEA column.

The chart on the preceeding page provides complete data on the distribution of funds by institutional type in the four states.

Who Governs Vocational Education at the Local Level?

It is important to understand the diversity of local governance patterns for vocational education because any federal legislation that defines a local education agency (LEA) in terms of the traditional pattern of public elementary and secondary schools will close the door to many eligible youth enrolled in other programs of vocational education. For example, 48 states have one or more area vocational schools administered in a manner other than under the regular local education agency.

There are six different delivery systems for vocational education described in the chart on the following page. Under four of the systems, there are several sub-types.

The same generalizations can also be made about the governance and administration of vocational education. General high schools and comprehensive high schools tend to be governed under the regular school district while area vocational schools and centers tend to come under a variety of local governance and administrative arrangements that involve an area broader than a regular school district. Postsecondary institutions more often are either state administered and governed or they come under some type of regional board. The need to continue the broader definition of the LEA in the reauthorized vocational education legislation is evident. That definition is as follows:

> "The term 'local education agency' means a board of education or other legally constituted local school authority having administrative control and direction of public elementary or secondary schools in a city, county, township, school district, or political subdivision in a state, or any other public educational institution or agency having administrative control and direction of a vocational education program."

Definitions of Vocational Education Delivery Systems and Program Organization Types[1]

Number of States	Type of Delivery System or Program Organization	Definitions	Number of Programs
	REGULAR[2] School District	A REGULAR school district is one in which a local education agency has responsibility for the administration of both general and vocational education programs in institutions other than those established by special purpose enabling legislation.	
50	Subtype A	Regular elementary and secondary school district	4,857
15	Subtype B	Independent postsecondary technical institute or community college school district	336
	SPECIAL[2] School District	A SPECIAL school district is an independent school district that exists apart from regular school districts serving the same region and that has an independent administrative authority and generally independent taxing and bonding authority.	
6	Subtype A	An independent secondary vocational school district providing vocational education services only	302
2	Subtype B	An independent school secondary school district providing vocational education as well as other shared services	10
15	Subtype C	An independent postsecondary vocational education district	216
	JOINT[2] Vocational Education Program	A JOINT vocational education program is a vocational education program offered in a separate institution that is supported jointly by two or more of the school systems served by the institution.	
7	Subtype A	A vocational education institution jointly operated by participating school districts	299
1	Subtype B	Vocational education institution operated by an independent/quasi-independent authority and serving sponsoring member school districts	49
5	SHARED RESOURCE[2] Vocational Education Program	A SHARED RESOURCE vocational education program is a vocational education program serving students from multiple school districts through any of a variety of student exchange programs including contracts, joint agreements, etc. Vocational education programs involving the sharing of resources are generally administered independently by the participating educational systems.	332
9	HOST SCHOOL[2] Vocational Education Programs	A HOST SCHOOL vocational education program is a vocational education program administered by a regular school district but serving students throughout a region.	289
	STATE[2] Vocational Education Programs	A STATE vocational education program is a vocational education program administered directly by a State agency or by a local authority under provisions established by a State agency.	
8	Subtype A	State vocational high schools (full-time)	113
10	Subtype B	State postsecondary area vocational schools	210
14	Subtype C	State technical institutes	106
23	Subtype D	State community college systems	202

[1] This table defines classes of delivery systems only and should not be confused with types of administrative structures which are defined in Tables II-7 and II-8 and reported by State in Table II-9.

[2] Capitalized words are used as classifiers in Table II-4.

Source: Woodruff, Alan (Project Director) National Study of Vocational Education Systems and Facilities. Institutional Development Associates Inc. 1978

Different local governance structures stem from the vocational education delivery systems of the 56 States and territories. These have been developed in response to widely diverse legislative and policy provisions. Consequently, the institutions and delivery systems that make up the vocational education delivery systems of the states and territories are as diverse as the state and territories themselves. Consequently, it must be remembered that the delivery of vocational education services is a function of state and local institutions and of vocational education delivery systems.

In spite of the provisions of state and federal legislation and policy, it is at the institutional level that services are rendered and the outcome of state and federal policy determined. Therefore, the effectiveness of state and federal vocational education legislation and policy will have a high correlation to characteristics of the institution and the delivery system.

The diversity of the administrative patterns has contributed to the variety of perceptions of vocational education. The reality is that vocational education is many different programs delivered in many different settings (both institutional and community based) and administered by a wide variety of local agencies and offices. Local administrations are designed to respond effectively to political, social and economic pressures facing the community.

Access to Vocational Training Stations

Access to programs of vocational education is not equal in all communities. Analysis of data in the tables on the following pages reveals that central and suburban areas of large cities have a substantial shortfall of secondary institutional station availability ranging from -27.3 percent for institutions in suburbs of metropolitan areas with populations over 500,000 to -.7 percent for stations in central cities of metropolitan areas with population between 100,000-500,000.

Source: Woodruff, Alan (Project Director) *National Study of Vocational Education Systems and Facilities*. Institutional Development Associates Inc., 1978

DISTRIBUTION OF INSTITUTIONS AND INSTRUCTIONAL STATIONS IN POSTSECONDARY SCHOOLS VS. POPULATION[1]

	Population Region Type	Institutions Number	Institutions Percent	Stations[2] Percent	Population Percent	Institutional Shortfall	Station Shortfall
A.	Central City, Metropolitan Population over 500,000	103	9.3	13.3	22.8	-13.5	- 9.5
B.	Suburb, Metropolitan Population over 500,000	110	10.0	10.5	38.0	-28.0	-27.5
C.	Central City, Metropolitan Population 100-500,000	102	9.3	17.1	8.9	+ 0.4	+ 8.2
D.	Suburb, Metropolitan Population 100-500,000	33	3.1	2.9	3.6	- 0.5	- 0.7
E.	City or Town Population 25-100,000	197	17.8	15.5	3.1	+14.7	+12.4
F.	Town or Region Population 0-25,000	115	10.5	6.7	23.6	-13.1	-16.9
G.	Service Area not Elsewhere Classified	440	40.0	34.0	NA		
	Totals[3]	1,100	100.0	100.0	100.0		

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[1] In interpreting data presented in these tables, it is important to note that institutions are reported by the type of region in which they are located and not by the size of the school district or political jurisdiction they serve. Thus a town/school district of 3,000 which is a suburb of New York would be reported in the column headed "Suburb Metro Area 500K+" and not identified as serving a "Regional Area 0-25K." Similarly, the estimates of population distribution presented in Tables VI-2 and VI-3 reflect population location and not town or school district population. This distribution is important in assessing the construction of vocational education facilities in suburban areas because of its implications for local ability to provide construction revenues.

[2] Instructional stations.

[3] Institutional totals (6,660) do not equal total survey responses (6,693) because some institutions did not respond to the classifying question used in the generation of this table

Source: Woodruff, Alan (Project Director) National Study of Vocational Education Systems and Facilities. Institutional Development Associates, Inc., 1978

DISTRIBUTION OF INSTITUTIONS AND INSTRUCTIONAL STATIONS IN SECONDARY SCHOOLS VS. POPULATION[1]

Population Region Type	Institutions Number	Institutions Percent	Stations[2] Percent	Population Percent	Institutional Shortfall	Station Shortfall
A. Central City, Metropolitan Population over 500,000	453	8.1	10.6	22.8	-14.7	-12.2
B. Suburb, Metropolitan Population over 500,000	597	10.7	13.5	38.0	-27.3	-24.5
C. Central City, Metropolitan Population 100-500,000	368	6.6	8.2	8.9	- 2.3	- .7
D. Suburb, Metropolitan Population 100-500,000	277	5.0	6.1	3.6	+ 1.4	+ 2.5
E. City or Town Population 25-100,000	958	17.3	21.4	3.1	+14.2	+18.3
F. Town or Region Population 0-25,000	2,402	43.2	34.5	23.6	+19.6	+10.9
G. Service Area not Elsewhere Classified	505	9.1	5.7	NA		
Total[3]	5,560	100.0	100.0	100.0		

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[1] In interpreting data presented in these tables, it is important to note that institutions are reported by the type of region in which they are located and not by the size of the school district or political jurisdiction they serve. Thus, a town/school district of 3,000 which is a suburb of New York would be reported in the column headed "Suburb Metro Area 500K+" and not identified as serving a "Regional Area 0-25K." Similarly, the estimates of population distribution presented in Tables VI-2 and VI-3 reflect population location and not town or school district population. This distribution is important in assessing the construction of vocational education facilities in suburban areas because of its implications for local ability to provide construction revenues.

[2] Instructional stations.

[3] Institutional totals (6,660) do not equal total survey responses (6,693) because some institutions did not respond to the classifying question used in the generation of this scale.

Note that similar shortfalls exist for postsecondary access in large metro areas (suburb and central city), but that a shortfall (-13.1 to 16.9 percent) is also reported for towns and regions with population 0-25,000. Sparsely populated rural area needs have not been adequately met by the area school concept.

The report from which this data is taken, states that "This disproportion may be explained partially by the fact that the low population densities of non-urban areas require proportionally more institutions to provide programs within reasonable travel distances. However, this fact does not explain the proportionately higher percentage of the instructional stations also found in non-urban areas. As would be expected, individual institutions serving these medium and small towns and rural communities generally have fewer vocational education facilities than those in urban areas. However, the great number of institutions serving these areas causes the overall distributions of instructional stations to be biased disproportionally toward non-urban areas."

Why Are Cities Shortchanged?

These figures have lead some to jump to the conclusion that the states have intentionally shortchanged the cities. How we arrived at this point with those communities with the largest concentrations of needs -- unemployment, rising dropout rates, loss of jobs cannot be just explained away by saying that states have been unresponsive. It is necessary to examine the highlights of key events since the passage of the 1963 vocational education legislation.

During the sixties, there was a concerted effort to build up the vocational education training capacity in rural America, especially in middle size towns. These were seen as a priority by the federal government as expressed through the vocational education legislation. Through the Appalachian Regional Act $358,500,000 has been spent for construction and equipment for vocational/technical schools and through the Economic Development Administration $41,697,700 has been spent for vocational school construction. These three sources of federal funds along with state and local dollars served as a catalyst in the development of vocational schools.

At the beginning of vocational school construction, cities had more training stations than rural areas. Yet, as the need for increasing vocational education training stations in the inner cities has grown, what has been the federal response? The Department of Housing and Urban Development has never made vocational schools a priority. The Comprehensive Employment and Training Act has concentrated on short-term problems rather than building the community's capacity to develop its citizens over the long-term.

While figures showing a break-down of where federal funds have been used for construction are unavailable, some federal vocational funds have been used to develop vocational training stations in the cities. The high cost of land and construction in these areas however, meant that fewer training stations could be developed with the same dollars used in other areas. As populations of the inner cities have grown during the last two decades, vocational education was not an immediate priority for community leaders.

Blame for the lack of vocational training stations in the inner cities can be placed on the doorsteps of many parties. No community, rural or urban, has an over capacity of vocational institutions. Rather than wringing hands about the current state of affairs, we ought to be directing our energies toward aiding those urban and inner city communities needing additional training stations to acquire them. It will take the combined resources of the federal government, states, and local communities because the need is great and the task will be costly.

Increasing depressed communities' capacity to link vocational education, for youth and adults, with other economic development initiatives can strengthen these communities' ability to attract and hold jobs. Aiding local communities to develop the institutional capacity needed to develop their citizens for work can be a successful means of getting states and local communities to bear a portion of the operating cost of such programs. This is an advantage that other federal manpower delivery systems do not have.

Problems

Vocational education's institutions are pervasive and multi-faceted. However, there are some serious factors which inhibit vocational education's ability to provide increased service to depressed communities. Foremost among such factors is the lack of capital funds with which to:

- Build and renovate facilities.
- Update the technological base, in terms of both hardware and software, of existing programs.
- Establish programs to meet the demands of new and emerging occupations.
- Establish additional secondary and postsecondary programs in hardware intensive fields (e.g. manufacturing and construction technology).

Additionally, mechanisms need to be provided, and financed, to support vocational education's efforts to work with business, industry, and labor. As programs become more complex and technological demands continue to escalate, institutions will necessarily seek to link even more closely with the private sector. Invariably this will involve additional costs that cannot be defrayed by today's inflation-plagued over-extended local budgets.

THE VOCATIONAL CURRICULUM--BRINGING CLASSROOM AND WORKPLACE TOGETHER

Vocational education provides irrelevant skills training for today's job market and especially for tomorrow's economy is a view often expressed in Washington.

It is true that vocational curriculum gets out of date much quicker than other aspects of the school curriculum. New inventions, shifts in energy use, emerging technologies, new production techniques--all have an impact on competencies that new and existing workers will need. Keeping vocational curriculum current with the requirements of the work setting is a continuing process. And it is fair to say that some vocational programs are out-of-date.

Providing an effective vocational instructional program requires at least five components:

- Regular contact with business and industry to assess their needs.
- Constant upgrading of the skills of vocational instructors to keep them abreast of the changing needs of the workplace.
- Frequent revisions of instructional materials to make them appropriate for use in teaching new skills.
- Systematic assessment of student needs in order to supplement job-specific instruction with other instruction as needed in basic and employability skills.
- Continuing exploration and development of on-the-job training opportunities.

Vocational education represents a mix of in-school and on-the-job training. There are many approaches to achieving the desired instructional goal--preparation for a job. Yet all programs merge these two learning approaches and additionally offer involvement for participants in vocational student organizations.

An Instructional Program Based on What Workers Do

The collective effort of 16 states who have joined together to keep vocational curriculum current and in tune with the job market offers perhaps the best example of this profession's commitment to quality programs.

In 1973 these states formed the Vocational Technical Education Consortium of States (VTECS). Together these states serve more than 50 percent of the population enrolled in vocational education.

Borrowing procedures developed by the Armed Services, VTECS proceeded to develop a systematic procedure for validating the tasks performed by incumbent workers in a given occupation area and determining the level at which the employer expected those tasks to be performed.

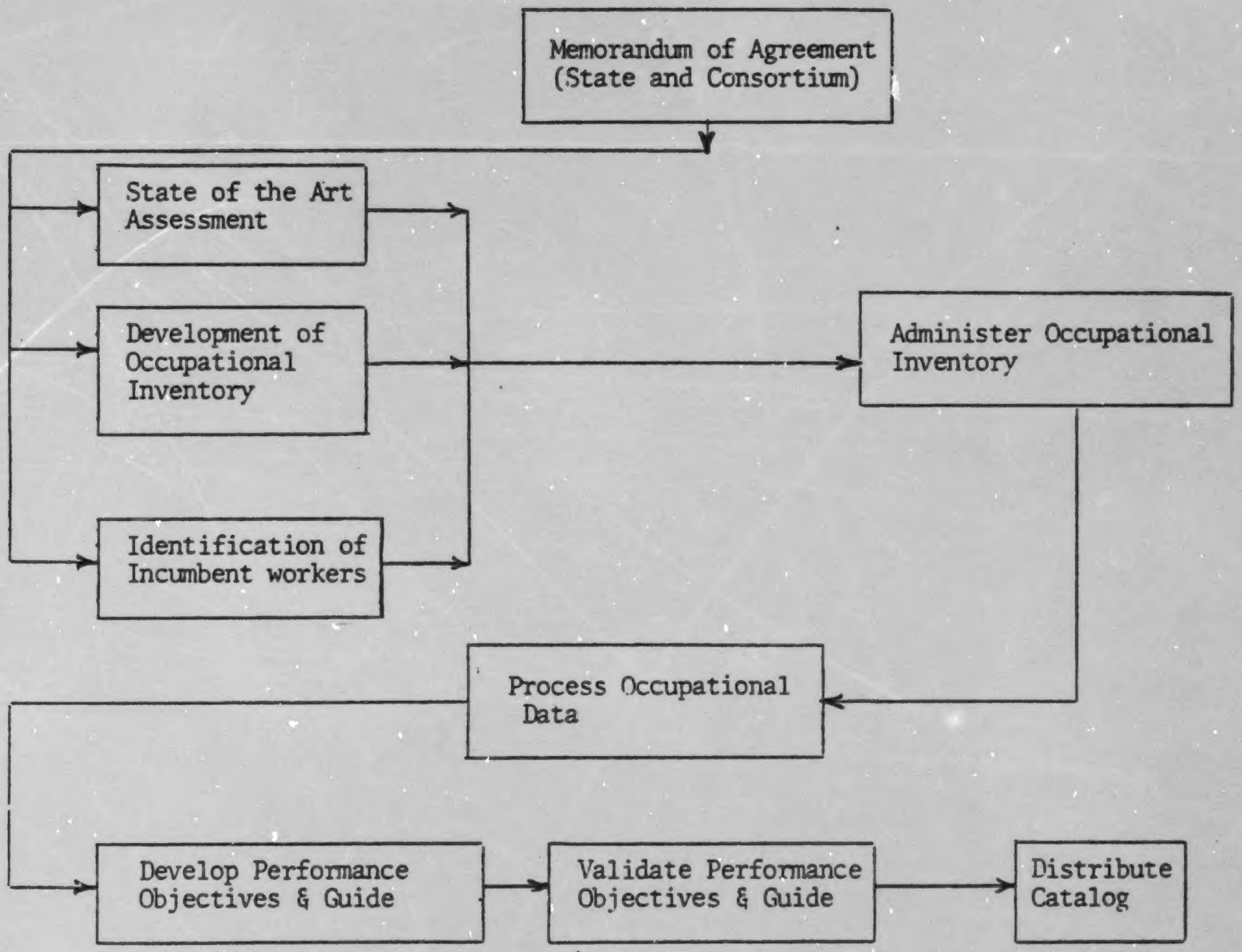
In the past seven years VTECS has analyzed 134 occupations, involving 12,150 employers in stratified random surveys. From these analyses, they have developed catalogs of performance objectives required of workers in these fields. The catalogs, which are available to any vocational education program within the 16 member states and to the training components of all branches of the military are used to develop new programs, revive existing ones and assure that existing curriculums remain sensitive to the needs of employers.

The table on the following page illustrates the VTECS developmental procedure.

Revitalizing Vocational Laboratories

While a great deal of energy and effort is exerted to keep curriculum in tune with the requirements of the work setting, it is still not always possible to keep existing programs current. Recently, a member of the American Vocational Association staff met with presidents of technical institutes and community colleges within one large northern industrial state. These presidents identified their most pressing need as being for resources to keep instructional media in

VTECS PERFORMANCE BASED MATERIAL DEVELOPMENT PROCESS


Memorandum of Agreement (State and Consortium)
State of the Art Assessment
Development of Occupational Inventory
Identification of Incumbent workers
Administer Occupational Inventory
Process Occupational Data
Develop Performance Objectives & Guide
Validate Performance Objectives & Guide
Distribute Catalog

tune with the requirements of the work setting.

In keeping with the nation's efforts to revitalize American industry, we must also revitalize many of the vocational and technical laboratories of this nation. This fact was verified in a recent survey that AVA conducted of a stratified sample of its members. More than half of those responding to the survey indicated that due to a lack of resources, much of their instructional media was not in tune with the actual work setting in which their graduates would be employed. They also cited an array of other needs as shown in the chart below.

AVA Membership Survey
Program Improvement Needs

RESOURCE	NO MAJOR CHANGES NEEDED	SOME CHANGES NEEDED	MAJOR CHANGES NEEDED	SHOULD BE REPLACED	DON'T KNOW	NO INFORMATION
Instructional Materials	27.4%	51.4%	11.9%	2.1%	0.8%	6.4%
Lab Equipment	22.0%	40.8%	23.1%	6.4%	1.5%	6.3%
Course Offerings	32.2%	41.4%	11.4%	0.9%	1.6%	6.6%
Facilities	23.9%	42.1%	21.8%	4.7%	0.9%	6.6%

As reindustrialization progresses, as new technologies and new equipment are developed, vocational education will become increasingly out of tune if efforts are not made to revitalize these programs as well. There will be a need for increased federal support if the vocational technical programs are to be able to prepare students for new requirements of the work setting.

Student Organizations--A Key to Vocational Education's Success

Participation in a student organization is considered to be an integral part of the vocational education instructional program. There are eight of these organizations. They are: Future Farmers of America/National Postsecondary Agriculture Student Organization; Future Business Leaders of America/Phi Beta Lamba; Office Education Association; Distributive Education Clubs of America; Health Occupations Students of America; Future Homemakers of America/Home Economics Related Occupations; American Industrial Arts Student Association; and Vocational Industrial Clubs of America.

Through more than 54,000 chapters, at secondary and postsecondary levels, more than 1,743,000 students are involved in activities that reinforce other aspects of the curriculum, as well as, personal and societal objectives.

Business, industry and labor are also involved extensively with these organizations, contributing significant amounts of money and time. Of the top 500 U.S. corporations (Forbes), 142 contributed funds to one or more of the groups. Overall, more than 1,000 businesses, industries, organizations and individuals contributed $1,532,415 to the national student organizations to assist them in serving vocational education students. (The chart on the following page provides basic information about each of the student organizations.)

Focus on Leadership, Civic Responsibilities, Incentives

Students participate in a large variety of activities, with leadership, civic, and incentive programs as the major focus. Leadership training activities include conferences, officer workshops, public speaking and actual officer responsibility. Civic responsibility is encouraged by participation in such projects as FFA's "Building our American Communities", the FHA/HERO's Runaway Assistance Program, VICA's Assistance to the Handicapped and Disadvantaged and DECA's Free Enterprise: Learn and Earn. Through such activities, and a thousand similar ones, student organizations create leadership opportunities that result in significant growth for large numbers of youth.

SCOPE OF THE VOCATIONAL STUDENT ORGANIZATION ENTERPRISE[1]

Program	Organization	Level	Membership
Agriculture	FFA	Secondary	494,394
	NPASO	Postsecondary	6,900
Business & Office	FBLA	Secondary	180,000
	PBL	Postsecondary	20,000
	OEA	Secondary	68,000
	OEA	Postsecondary	6,000
Distributive Education	DECA	Secondary	171,482
		Postsecondary	7,528
Health Occupations	HOSA	Secondary &	19,000
	HOSA	Postsecondary	
Home Economics	FHA	Secondary	408,411
	HERO	Secondary	32,221
Industrial Arts	AIASA	Secondary	16,500
Trade & Industrial	VICA	Secondary	283,287
	VICA	Postsecondary	13,713
TOTAL:			1,743,149

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[1] Information is best data available, National Coordinating Council for Vocational Student Organizations, 1978-79.

Students are also encouraged to excell by recognition, competition and incentive programs. While these vary greatly from group to group, all are designed to motivate students, to correlate with instruction, and to build upon the involvement of business, industry and labor representatives.

Selected data show that the magnitude of such events is significant. DECA, for example, made 4,010 national-level awards for achievement in 1979. FBLA reports that 200,000 students participate in their incentive programs. The VICA Skill Olympics involve 150,000 youth in local competitions. FFA alone sponsored 65,000 contests above the chapter level.

Clearly, the leadership, citizenship, interpersonal and employability skills that students develop as a direct consequence of participation in student organizations are invaluable to them as they assume full productive roles in our society.

Student Organization Needs

While student organization activity is overwhelmingly positive, there are some factors that tend to inhibit realization of even more of the potential benefit. Specifically, the time consuming nature of interpersonal activity makes a significant demand on the already strained schedules of teachers/advisors. What is needed is a mechanism for supporting and/or relieving instructors of some of their other responsibilities to enable them to participate at even higher levels.

Given today's economy, consideration needs to be given to mechanisms that might encourage the volunteer participation of thousands of parents, teachers, employers and labor representatives. Similarly, on-going leadership training for instructors, particularly for new teachers who want to become involved in student organizations, will contribute directly to an expansion of this successful approach to learning.

State and federal leadership within the formal structure of education plays a concommitant role that needs to be reinforced. Full-time state leadership on state department staffs, is vitally necessary to the coordination of the activities of each instructional area's youth group.

Reporting and data requirements also need to be expanded. Because of the integral nature of student organization activity and because of its contribution to vocational education's objectives, systematic recording of who, how many, where and what can prove invaluable to state and national leadership in vocational education.

Views of Vocational Student Organizations

"Organizations such as Future Homemakers of America hold the key to unlocking the best and brightest promise of our nation's youth. I cannot help but believe in the youthful optimism of their membership and in their unwillingness to accept pat excuses for why things that are wrong cannot be made right."

U.S. Senator Birch Bayh, Indiana

"I have been involved in the actual hiring of office workers for 3 M for many years and from an employer's standpoint, the students who have been working as on the job trainees and active in their respective OEA chapters are some of the best trained and most valuable office employees we have.

Mary Ann Jolly
Administrative Placement Manager
3 M

"I sincerely believe that Future Homemakers of America is possibly the finest and most positively directed youth organization in this country. Your goals are the highest quality; your membership is of the highest quality."

Margaret Adams
Senior Editor, National Affairs
Good Housekeeping Magazine, New York

"Vocational education is extremely important because so many jobs do not require college education but require specific skills. With the addition of youth organizations, students learn time management and the setting of priorities."

Sharney Chasteen
Education Relations Manager
Weyhauser Corporation
Tacoma, Washington

Using the Community For Learning Purposes

Vocational educators have never believed that students can prepare for work without getting some actual exposure to the workplace as part of their educational program. Vocational education uses many different approaches for connecting in-school learning with on-the-job learning. To evaluate the vocational education enterprise in 1980, a careful examination of some of these major approaches to community-based learning is essential.

1. Cooperative Education

The most widely known and most successful vocational education approach to community-based learning is cooperative education. More than a half million students were enrolled in these programs in 1978.

These students are combining classroom instruction and on-the-job training under the close supervision of a coordinator. They generally attend classes for approximately half a day and then work for the balance of the school day at jobs which require them to practice the skills they have learned in the classroom.

The key to the program is the coordinator, who enlists appropriate employers, helps them determine the student's on-the-job responsibilities and works with students to assure that their classroom programs equip them with the skills they will need to carry out these responsibilities.

This program is so successful that fully 50 percent of these students continue in full-time positions with their cooperative education employer after graduation.

In its report of "The Status of Vocational Education: 1978," the U.S. Office of Education praised the program, stating,

> Program activities provide instruction at the secondary, postsecondary and adult levels and cut across all occupational areas. The work environment aids in achieving educational goals. Key instructional elements are the development of

competencies needed for employability, evaluation of effectiveness of these programs, and establishing bridges between school and employment for all students including special groups such as handicapped, women, minorities, disadvantaged and incarcerated."

The chart on the following page shows the involvement of each instructional area in cooperative education.

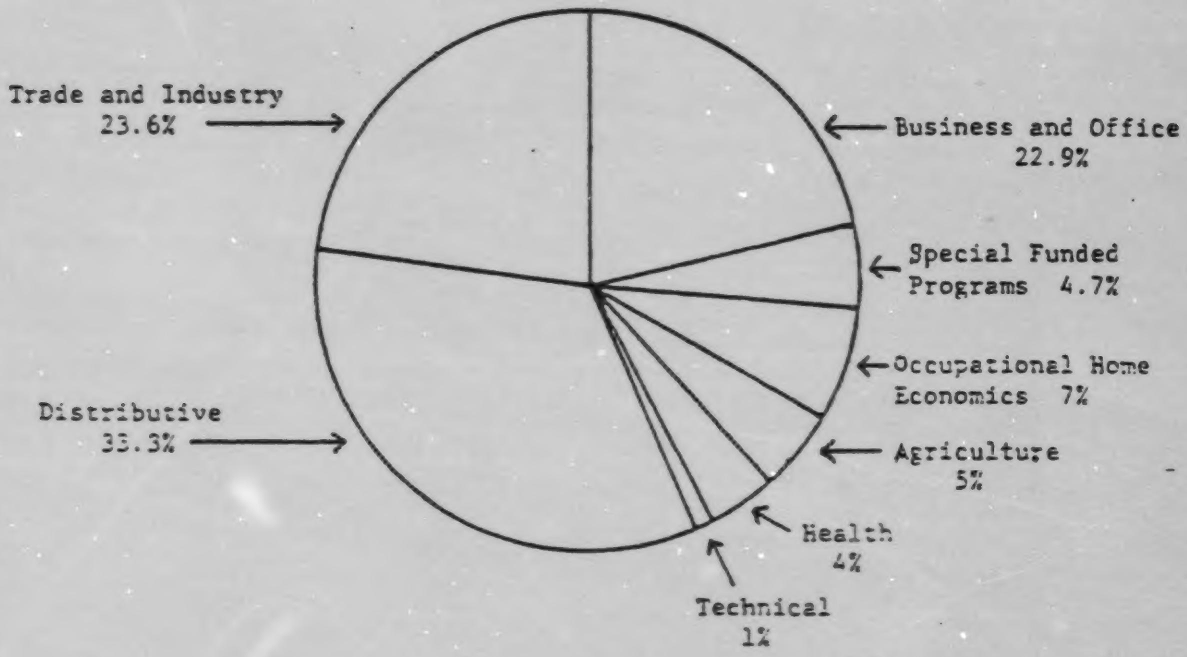
Students enrolled in cooperative education programs receive the minimum wage or better for the hours they work. During the 1978 school year, 29 states reported the estimated earned wages of these students, based on the minimum wage of $2.65 an hour, at $689,423,364. From these figures, USOE estimated that the total earned wages of students participating in cooperative education in the 57 states and territories was over $1.3 billion. From these earnings, the total taxes paid by these students was estimated at more than $100 million. This, they noted compared "most favorably" to the total federal, state and local investment of $98 million.

Cooperative education is available to both regular and special needs students, thus preventing segregation of disadvantaged and handicapped students. For many minority and disadvantaged students, the cooperative method of education is an effective means to get an employer to take a chance on an individual who they would otherwise have rejected. The new targeted tax credit program, which includes credits for employers who hire cooperative education students, has been an added incentive in efforts to place disadvantaged and minority students in cooperative education programs.

2. Apprenticeships

Apprenticeship training has been a historical method for preparing competent skilled workers on the job. In 1978, vocational education provided related instruction for eighty to ninety percent of the 280,224 participants in apprenticeship training programs.

COOPERATIVE EDUCATION ENROLLMENTS AS A PERCENT OF OCCUPATIONAL PROGRAMS



Status of Vocational Education: 1978, USOE

While cooperative education is school-based, apprenticeship training is industry-based. A greater emphasis is given in apprenticeship training to skill development and less to the development of good work habits. Apprentices have regular jobs and receive journeymen papers on the completion of their training program. Cooperative students have training positions with no certainty of full-time employment after completion of the program. Apprenticeship programs may be sponsored by a single employer or a group of employers--sometimes working jointly with a union.

While competition for entry into apprenticeship training is often fierce, coordination with vocational education programs is increasing. Through vocational education, employers can identify students who are highly motivated and competent for possible trainee openings.

3. Clinical Experiences

Several of the vocational education programs use clinical experiences to provide on-the-job learning for their students Clinical experiences differ from cooperative education in several respects:

(A) The student is not paid.

(B) The school often provides on-site instruction through a paid staff person.

(C) Activities at the work site are highly structured for learning purposes.

This approach is particularly widespread in health occupations and other related human service areas. Approximately 350,000 vocational students partici- each year in some form of clinical experience as part of their vocational education preparation.

4. School, Home and Community Projects

Many vocational education programs build into the school learning program experiences that approximate the work setting. For example, food service and prepration programs are often responsible for a school restaurant or cafeteria. Many auto mechanics programs will operate a garage in which students who are nearing the end of their training repair automobiles for local residents. Other examples of programs in which such activities can be a part of the school programs are horticulture, office occupations and computer programs.

Home projects have been the major work experience method used by agriculture and home economics. Typical projects might be redecorating the student's room, putting together a babysitting kit or raising a crop.

Community projects are another way of giving students on-the-job learning experience. Typical projects are constructing a building, tending a forestry plot or landscaping the town square.

Although it is difficult to estimate the full extent of involvement in such projects, conservatively at least a million students are involved in one or more such projects.

5. After-Hours Work Site Training

In many communities, industries allow schools to use their plants and equipment for instructional programs after work hours. During otherwise "down hours," students develop their technical skills within actual work settings. In this way, employers help to ensure students' mastery of particular skills that will prepare them to become members of the local labor force. This is an especially useful approach when costly equipment is involved.

6. Combining Employment and Vocational Education

Many vocational students are employed after school hours in jobs that are related to their field of study. According to the National Longitudinal Study of the Class of 1972 conducted by USOE, at least a third of the high school seniors in vocational education programs held part-time employment in work related to their studies.

The percentage of adult students who are combining employment with their schooling is probably even higher. In a U.S. Census Bureau study of adults taking full-time vocational education programs, approximately two-thirds were also employed.

For these people, vocational education becomes a means to acquire the knowledge and skills they need to advance in the workplace.

INVOLVING BUSINESS, INDUSTRY, AGRICULTURE AND LABOR IN VOCATIONAL EDUCATION

Unlike the grass roots perception of vocational education, the Washington perception has been that vocational educators are isolated with little or no contact with or involvement of employers and organized labor in the planning and carrying out of vocational education programs. Yet. in a series of private sector education roundtables, the Vice President's Task Force on Youth Employment found that employers believed that vocational education was responsive to their needs. The feedback from these grass roots round tables confirmed what many of us have known for a long time--that vocational education solicits and encourages the involvement of employers and labor in program development, in carrying out the instruction program and in evaluating its effectiveness. Advisory councils are a major means for securing such participation.

Other approaches to involvement exist as well. One of these is the education/work council, as established in 33 communities through the joint effort of business, labor, and education. Another approach involves the magnet school concept in which both those from the economic community and the leaders concerned with the social issues of the community are jointly involved in charting the direction for these schools. Magnet schools in Dallas and Houston, Texas and in Los Angeles are outstanding examples of this concept. In these schools, business, industry, labor and other community leaders are involved in the development of curriculum for new technology programs and in coordinating the overall program for the school.

The Most Elaborate Advisory Council System in Education

Vocational education has the most elaborate, the largest, and the most active advisory council structure that can be found anywhere in education. Yet, this is not to suggest that the system of advisory committees cannot be improved, and that new and creative approaches to increasing the communication and involvement among vocational educators, employers, labor, and citizens at large is not needed.

Federal vocational education legislation defines the membership categories and the responsibility of the national and state advisory councils for vocational eduation. These are among the oldest advisory councils mandated by the federal legislation. Both the Nation Advisory Council for Vocational Education (NACVE) and state councils are supported by federal appropriations. No federal funds are available to support local advisory committees. However, local dollars and member investment of inkind contributions is huge, as is the number of persons participating on these councils.

Local advisory councils in vocational education are of two types. One type is the general advisory committee. The general advisory committee is established either at a local school system level or as an overall advisory committee for an institution delivering a comprehensive program of vocational education. At least 50 percent of the members of these councils usually represent employers and labor, with the remaining 50 percent representing the governmental leaders, civic leaders, women, minorities, the handicapped and representatives of related educational areas. The general advisory council's essential function is to assist in system or institution-level planning, improving services delivered, improving communications among different community groups, and conducting overall evaluations.

The second type of local advisory council is the craft committee. In most communities, a craft committee is set up for each program area. For example, a craft committee would be set up for each of the following program areas: Automobile mechanics; machine shop; office occupations; horticulture.

These craft committees are composed primarily of persons who are employed in the occupation for which the program is preparing people or who are employers who will be employing persons from this particular program area. The craft advisory committee offers recommendations pertaining to instruction, curriculum content, competencies that graduates ought to possess and essential instructional media. Often committees also assist in the placement of graduates from the program.

Although no formal surveys have been conducted concerning the number of general and craft advisory coucils, NAVCE estimates that there are at least 26,000 operating at the local level in vocational education. The NACVE staff further estimates a minimum of 330,000 persons are participating on these councils.

The frequency of local advisory council meetings depends upon each local situation. Most would meet at least twice a year with some meeting as often as quarterly. Craft committees which are assisting in getting a new porgram started would meet mumerous times to help in developing the curriculum.

Vocational education in America does involve employer, labor, and other community leaders. Some communities make this involvement more beneficial than others. The quality of involvement can be improved and made increasingly more effective. However, evidence suggests that the charge that vocational education is isolated with little or no contact with employers is not valid in the majority of local settings.

VOCATIONAL EDUCATION IS MORE THAN INSTRUCTION

Vocational education has found that student achievement of occupational objectives can be enhanced tremendously by the provisions of some carefully targeted support services. Over the years, a wide range of these services have been developed. Often these ancillary services are vital catalysts that either remove or minimize a perceived stumbling block to learning or that provide essential support at a time when most needed. As such, these services become necessary parts of vocational education because, without them, entry to vocational education would have to be restricted, attrition would increase, and placement would be reduced.

For purposes of overview the services provided by vocational education, in addition to the host of instructional programs, may be grouped into five categories. These are: (1) service coordination and ancillary services that support the overall functions of vocational education, (2) outreach and entry services that involve vocational education's contact with external groups and with potential students; (3) instructional support services that provide specialized instruction in addition to that which is centrally occupational in nature; (4) guidance services that counsel inform, and provide relevant experiences to vocational education students in all programs, and (5) placement services that support program leavers and/or completers in making the transition to work. An informal telephone survey of four states (Michigan, Ohio, Wisconsin. Missouri) was conducted to sketch a partial view of what actually exists at state and local levels. The results are provided in the table on the following page. They are intended to be illustrative rather than comprehensive.

Vocational support services may be of a nature to be applicable to all populations. Often individual (or groups of) services are tailored to meet the

VOCATIONAL EDUCATION'S SERVICES

Services/Description	Extent of Service
1. Service Coordination and Auxiliary Services • Coordination of services • Auxiliary services	• All states employ at least one full time sex equity coordinator. Some have appointed additional ones on a regional basis. • All states have displaced homemaker centers/sites. One contacted state reports seven such programs, regionally distributed that together represent a $400,000 investment ($340,00 federal, $10,000 state, $50,000 local). • The national investment of $6,774,000 (federal) enabled 38,600 students to receive work-study assistance. • Formal and informal agreements have established the relative responsibilities of vocational education, vocational rehabilitation, and special education regarding services to the handicapped. • One surveyed state provides free tuition for displaced homemakers attending community colleges
2. Outreach and Entry Services • Outreach Services • Community Involvement • Recruitment • Vocational Assessment	• Of the $232,600,000 total (19.2% federal, 80.8% state and local expenditures 1978) a significant portion was spent on assessment and outreach services. Similarly, of the $470,000,000 total federal, state, and local investment for the disadvantaged (16.6% federal, 83.4% state and local) a portion was spent on supplying assessments and outreach services to eligible clients. In 1978 more than 50% of the states overmatched the federal investment. • Nationwide minority enrollment increased, from 1972-1978, by 102% for Asians, 46% for Blacks, and 36% for American Indians/Alaskan Natives. • Another state reported that all local coordinators, all teachers of cooperative programs, and all vocational instructors are charged with the responsibility of

state's schools. The bilingual counselors are part of a fourteen member state staff who work at providing services for limited English speaking students.

- Another state has developed curricula in six different languages via the efforts of two full time specialists.

4. Guidance Services
   - Vocational Guidance
   - Education Information
   - Labor Market Information
   - Age Integration
   - Role Model Development

- Of the total federal, and state and local implementation serving the disadvantaged and handicapped (see section 2) a portion provides guidance support services to eligible clients.
- One contacted state reported total investment of $14,500,000 in guidance services ($1,000,000 federal, $500,000 state, $13,000,000 local) provided mainly for counselors.
- Another state has provided all community colleges, all K-12 schools, 2,500 libraries and all prime sponsors with vocationally relevant occupational information.
- One state surveyed has reported occupational resource centers, each staffed by a paraprofessional, in 200 buildings.

5. Output Services
   - Job Placement
   - Job Development
   - Testing/Credentialling/Licensing
   - Geographic Relocation
   - Alternative Work Service

- Of the total federal, state and local investment in serving the handicapped (see section 2) a portion provides output and placement services to eligible clients.
- All states work cooperatively between vocational education and employment services to effect job placement of completers and leavers.
- Several states employ liasion persons, with the governor's office, to encourage industry to relocate in the state. These persons then assist in training the company's new employees. (For additional detail see this testimony's economic development section).
- Another state operates nine regional job placement centers serving 125 K-12 schools and 14 placement networks serving 175 K-12 schools.

- Yet another state provides 45 full time placement specialists via a total investment of $920,000 ($353,000 state, $567,000 local).
- One state surveyed has six full time professionals, and 5½ FTE paraprofessionals allocated to the vocational placement and follow-up function.
- In one state contacted, regional planning districts are encouraged to hire a placement director to assist local schools in their placement efforts.
- One surveyed state is conducting a longitudinal employer/employee follow-up study using a population of 60,000 graduates.

- National Expenditure data from Status of Vocational Education, 1978.
- State reported expenditures were for 1979.
- Examples derived from an informal four state telephone survey.

particular needs of a population with a unique set of needs (e.g., women, minorities, disadvantaged, handicapped, displaced homemakers, the incarcerated, persons with limited English skills). Some are provided by vocational education instructors, others by related instructors and yet others by specialized support personnel. All are crucial to the operation of vocational education as it continues to expand its commitments to serve all persons in all communities!

The following summary explains the types of services included in each category:

Service Coordination and Ancillary Services

- Coordination/articulation of all services to establish an effective mix of institutions, agencies and programs that support the vocational education function. Frequently this involves interaction, coordination, and the establishment of procedures and policy with in-school and out-of-school groups such as the Jobs Services, Halfway houses, youth groups and the like. This activity enables vocational education to become aware of other agencies and institutions providing support services and to help those other organizations become aware of the service capabilities of vocational education.
- Ancillary support services provide for the needs of youth in such areas as housing, clothing, health services, child care, transportation, legal advice and financial aid/earning power. As an example of the latter, while monetary support is of course available from a variety of federal, state and local sources, opportunities for earning money are also available via work study and cooperative education.

Outreach and Entry Services

- Outreach services involve making *all* citizens of a community, including the potential students aware of what vocational education is doing, what vocational education can offer them, and of the entry requirements. Outreach involves not only the provision of information, but also follow-through to insure that the information is understood. A major facet is the development of support with potential referral agencies (e.g., welfare. police, employment service, community action groups). Outreach occurs in *many places* (e.g., Home, school, shopping centers, church, government agencies) and at *many times* (e.g. before, during and after school or work) via a *variety* of media (e.g. printed materials, radio, television; word of mouth, personal contact.)
- Community involvement develops joint ventures of the school/institution and the community. By means of local progam, craft and student organization advisory councils, and by contacts developed through placement activity, vocational education frequently develops a network of school-community linkages that rivals even that of athletics. The consequences of such network services are: increased awareness of current education/business/industry/labor trends; job contacts and placements; increased community understanding and support of schools and even donations of materials, equipment and inkind services.
- Recruitment services go beyond outreach because of their intent to *actively* get those in need of vocational education actually to participate in it. Often special staff who can communicate with target groups effectively are employed to encourage participation in vocational education's instructional

programs. Occasionally financial incentives are even involved.

- Vocational assessment provides intensive diagnostic services that assist vocational education's clients, or potential clients, in identifying their needs, interests and capabilities. After the initial assessment, further concerted activity between students and counselors/instructors results in an action plan for the client. As the demands for "front end" diagnostic services increase, due to the requirements for Individual Education Plans the importance of such assessment services can only increase. Beyond such planning, assessment also can result in specific prescriptions that are used to tailor instructional content and methods to individual client characteristics.

Instructional Support Services

- Basic Skill/General Education services involve the improvement of skills such as reading and math which youth and adults find necessary to their life roles and which affect success in work. Other such areas include speaking, human relations, interacting with superiors, understanding the nature of industry and leadership. Vocational education provides a new context in which to apply basic skills and thereby help make the learning of basic skills seem more relevant to the student.
- Job readiness training helps prepare vocational education's clients for the difficulties in securing and holding a job. Instruction focuses on interview techniques, usage of job vacancy sources, relating to employers and co-workers, and methods for increasing the likelihood

of advancement. In addition; "hand holding", "one-to-one", and "on-call" assistance is frequently made available while clients are experiencing the actual trauma of seeking a job. Such experiences are offered at appropriate times (evening, summers, weekends) in order to provide service when actually needed.

- Occupational experience services provide youth and adults with experience in work roles which will be useful to them in either making a more informed occupational choice or in easing the transition from school to work. Such experiences can be paid or unpaid and they are offered before, during or after participation in vocational education. Methods employed include: "shadowing" workers (an observation period in which the student spends some time with those working at the particular jobs or group of jobs), employment in simulated work environments via the operations of a "model" business and/or community service, supervised on-the-job work experience (usually while the student is in school, and with supervision by a professional to see that an effective and efficient educational experience occurs), internships (usually full-time work experience under the supervision of professionals), and transitional employment (usually some kind of meaningful work during the time of moving from school to a stable, desired work role).
- Law and regulation interpretation services provide vocational education clients, students , adults and employers with the legal insights and and preparation that is needed for work roles. Typically included are information on discrimination, minimum wages, occupational safety, workmens compensation, due process and labor regulations.

- Translation of vocational education instructional materials into other languages as needed by persons with limited English skills is yet another of vocational education's services.

Guidance Services

- Vocational guidance services help youth and adults to make better decisions regarding the preparation for, and the actual transition from school to a stable career. As such, this service involves personal counseling as well as occupational information. It encourages the self-assessment of ability in all areas. Guidance is provided on both an individual and group basis and is most often provided by specially trained vocational guidance counselors and occasionally by peer counselors. Vocational instructors, and business, industry and labor personnel, by serving as role models to many and by virtue of their expertise and insight into an occupational area, also play significant roles in vocational guidance. The combined effect of vocational guidance is to provide social and psychological support during the periods of training, job search and initial employment.
- Education information is provided to vocational education clients to assist them with essential information about the educational process, educational requirements, help in improving study skills and information about alternative educational programs.
- Labor market information services are directed toward the communication and use of data on characteristics of the labor market by vocational education's clients and by the institutions and faculty serving them.
- Age integration is a method of providing vocational education's clients

the opportunity to come in close contact with persons of all age ranges, to learn about work environments and work roles. Typically this is done by using resource persons in any or all of vocational education's programs. Integration of this sort allows clients to observe, question and develop perspectives of the various stages in the career development process all the way to retirement.

- Role model development focuses on creating and communicating "successful images" to students. It involves providing enrollees the opportunity to come in contact with, and be influenced by, individuals who can serve as concrete examples of the desired performance in a work role. These success models are especially useful as "mentors" who help students decide how to act, operate and "get ahead" in a work environment.

Placement Services

- Job placement specialists engage in matching existing jobs to students' capabilities and credentials. Additionally, they perform important functions in helping youth and/or adults in job hunting, interviewing and job application skills. Yet another function of this service is to follow-up on program completers and leavers, placed or not, and thereby collect information useful for program improvement purposes. Placement is a continuous rather than a "one time" service. Placement services include developing a "bank" of information about present and future job vacancies and about current and potential clients, particularly those likely to become unemployed.
- Job development activity centers on the creation of new/additional labor force demand. Additional work roles are stimulated by manipulating the

the economy or by directly creating jobs. Jobs could be created in either the public or private sectors, particular geographic areas; industrial sectors may be targeted for economic stimulation; or shifts from less to more labor intensive methods of production could be pursued. Schools are also involved in job creation by actually operating small businesses. Another important service of job development is job redesign--that is, the changing of job descriptions to make jobs more satisfying and the changing of work roles and/or sub-dividing jobs to make, for example, two part-time jobs out of one full-time job. Yet another technique of job development is to establish community improvement/development activities that carry out desirable tasks via partnerships between vocational education and the community. Entrepreneurship activities constitute a further dimension of job development.

- Testing, credentialling, and licensing services involve vocational education in documenting client achievement of special requirements or experience necessary to enter certain occupations and/or training programs (e.g. licenses for practical nurses, apprenticeship entry, high school diploma). Services include checking the validity of existing records, testing, documenting work experiences, and providing educational experiences which will assist clients in succeeding in testing, credentialling or licensing situations.
- Geographic relocation services assist vocational education's clients in moving from regions with a relative surplus of their particular labor group to regions with a surplus of jobs. Alternatively, some such services relocate vocational education training program,

particularly short term ones, to make them more accessible, and or convenient to the job site. Relocation services also work with economic development agencies to encourage new industries to move to areas with labor surpluses and job opportunity shortfalls.

- Alternative work services stress the exposure of vocational education's clients to personally and socially rewarding roles other than normal private sector employment. Such alternatives include family life, volunteering and leisure pursuits.

CONSUMER AND HOMEMAKING EDUCATION

> If we had any adequate sense of the priorities of our society, it seems to me that we would put ten times as much of both research and education into the area of the household as we do now.
>
> --Kenneth Boulding, Economist
> Journal of Consumer Affairs
> Winter, 1972

The "area of the household" is the subject matter of consumer and homemaking education programs taught in vocational schools in every state. A coalition of the American Vocational Association, the American Home Economics Association and the Home Economics Education Association adopted a statement in 1979 which summarizes the essential skills needed by homemakers. The purpose of consumer and homemaking education is to assist boys and girls and men and women to be able:

- To provide for personal and family development throughout the life cycle.
- To establish satisfying personal and family relationships.
- To care for and nurture children.
- To manage financial and other resources.
- To provide nutritious food for self and family members.
- To select and maintain housing and living environments for self and others.
- To provide and care for personal and family clothing.

Consumer and homemaking vocational courses which address these goals include consumer education; food and nutrition; family living and parenthood education; child development and guidance; housing and home management; and clothing and textiles. The major concepts that unify these courses are values, management and interpersonal relationships.

The traditional practices of offering consumer and homemaking education to girls in junior and senior high school or to adults in short-term classes has changed in the past decade. Programs are more flexible now, appealing to both males and females of all ages. Every state in the union now offers specialized one-semester or year-long courses in the areas of consumer education, management of resources, nutrition and food use, and parenthood education. With more women in the work force, men, too, must be prepared for the occupation of homemaking. Every individual needs to understand the dual role of homemaker and worker and the need to provide a support system in the home for those who are employed.

Inflation, unemployment and lack of information mean that many people in America are not eating properly. Consumer and homemaking education teaches the nutritional needs of all age groups; the preparation of low-cost meals; and proper food storage and food preservation.

Across the country, there have been great increases in child abuse and neglect, family violence, single parents and teenage pregnancy. Consumer and homemaking education approaches all of these problems in all of the states.

People need to learn to conserve energy. More than half the states have incorporated specific programs on energy into resource management and home management classes offered by consumer and homemaking education.

In summary, the emphasis of consumer and homemaking education today is to develop skills for coping with societal problems and to prevent or overcome problems of individuals and families.

National Concerns

The breadth of service provided by consumer and homemaking education today is a reflection of a focus upon national concerns. The U.S. Department of Education reports that consumer and homemaking education programs are now serving persons in economically depressed areas and areas with high unemployment; older Americans; disadvantaged and handicapped persons; youth and adults in correctional institutions; single parents and school-age parents; displaced homemakers who want to enter or reenter the labor force; and men and women who want to enhance their roles as full-time or part-time homemakers.

Economically Depressed Areas

According to the Bureau of Vocational and Adult Education, an average of 54 percent of the funds in consumer and homemaking programs have been spent in the service of people in economically depressed areas. Two-thirds of the states offer programs at locations in public housing areas, programs which are designed to help individuals gain knowledge and obtain information about agencies providing aid to consumers and consumer education.

A special curriculum developed in California this past year encourages low-income students to raise the level of their aspirations and to develop behavior patterns and attitudes which will help them enter employment-related training.

In 1978-79 in Kentucky, some 3000 men and women received help with homemaking skills at "Drop-In Centers" located in five low-income urban neighborhoods. The centers were developed to help low-income people overcome their fear of formal instructional settings. Local school boards provide space for the centers and the Kentucky Bureau of Vocational Education supplies teachers and resource materials, including low reading-level publications. An increasing number of participants have been interested in food preservation as one means of cutting food costs. They also receive information on nutrition, consumer education, prenatal care and family planning.

Low-income adults and children participate in programs at 155 Family Life Centers in Ohio. Sponsored by the Home Economics section of the Ohio Department of Education in cooperation with local and joint vocational school districts, the centers are located in eight major cities, two medium-sized towns and the seven rural Appalachian counties in the southeastern part of the state. The core of of the program is parent-infant interaction, but participants can also learn food preparation and nutrition; consumer education and home management; clothing renovation and construction; budget decorating; and home improvement. Community groups support and request assistance through the Family Life Centers. In 1979, 1470 of the participants became involved in community service activities, 133 started job-training programs and 69 were studying for the GED.

In Detroit, Michigan, three of the inner-city high schools offer a "Forum for Families" to youth and adults. For five half-days a week during six weeks in the summer, participants have the opportunity to learn about child care and development, effective family living, family foods, commercial foods, consumer education and commercial clothing.

Burbank, California has a special program in consumer and homemaking for non-English speaking students. The teaching of English is a part of this program. Nutrition programs in several areas of California have been expanded to help students learn to plan nutritious meals within their cultural heritage.

Special classes in consumer and homemaking education help migrant worker families. In several states, mobile laboratories take programs directly to the camps where migrant workers are housed. In Texas and Puerto Rico, all of the curriculum materials for consumer and homemaking courses are written in Spanish. A number of states have developed special programs for Cuban refugees, including Florida, Texas, New Jersey and New York.

Older Americans

With federal funding, every state provides programs for the elderly in consumer and homemaking education. Older Americans can obtain information on nutrition and food use, consumer education and management of resources. In Texas, for instance, consumer and homemaking teachers located in public housing projects work with the elderly to help them understand medicare and health and to develop skill in using limited resources to improve nutrition.

Handicapped Persons

Consumer and homemaking teachers cooperate with other teacher to make all of the education of the handicapped as meaningful as possible. The handicapped can study grooming and personal hygiene; money management; nutrition; simple meal planning and preparation; clothing; child care; and the development of hobbies. Many of the states have special classes in consumer and homemaking education in the State Schools. Oklahoma, for instance, has such classes in the State Schools for the Blind and Deaf.

Correctional Institutions

About half the states have consumer and homemaking programs for youth and adults in prisons, detention homes or other correctional institutions. Louisiana has had such a program since 1973. Of the first 18 persons participating in that program, only one has ever returned to prison. These programs include an emphasis on drug and alcohol abuse prevention.

Kentucky has both consumer and homemaking and wage-earning homemaking programs in the women's prison system. Part of this program has focused on parenting -- helping the incarcerated mother to accept herself and her children. Often, the women are single parents. Chino, California has a program in consumer and homemaking education for the wives and children of incarcerated men.

Single and School-age Parents

Approximately half the states have special classes on education for parenthood, with the emphasis on prenatal development, child abuse and neglect, and nutrition. Parenthood education is also a part of comprehensive homemaking classes and classes in family relations. Often preschool laboratories are a part of these courses.

In 1977, Brighton, Colorado started a "Teen Renaissance Program" to keep student parents and pregnant students in school. This consumer and homemaking education program offers the student a day-care facility where she may leave her child while she receives parenting education. She has the opportunity to learn about prenatal development, childbirth and health care. In Florida, Orange County Public Schools have developed a new program called "Home-Base Child Care." This is a consumer and homemaking education pilot project funded under Subpart 5 of Public Law 94-482. Parents who go to work early in the morning or work late in the day now have an alternative place to leave their elementary school children before and after school. A trained "professional parent" within walking distance of each child's home cares for the "home-base" children as if they were his or her own.

In the Watts area of Los Angeles, teenagers can learn infant and child care and parenting skills in the classroom. Although most of those enrolled are school-age parents, other students may also enroll. The students in this program develop marketable job skills as part of their training. Another program for school-age parents is the child development student center in Bakersfield, California which was made available with funding from five different sources, including consumer and homemaking education.

Displaced Homemakers

Consumer and homemaking programs in every state have provided supplementary programs for displaced homemakers. Topics of study include resource management, improving self-concept and developing self esteem. Participants are also taught how to transfer homemaking skills into employment skills.

California, Florida, Idaho, Kentucky, New York, Ohio and Tennessee have led the nation in implementing displaced-homemaker programs. These states have provided a broad range of services as well as conducted workshops on money management, skill assessment, divorce counseling, assertiveness training and job hunting.

Men and Women as Homemakers

New programs and new emphases in older programs have concentrated to a greater extent than previously on the dual role of homemaker/worker for both men and women. Approximately 20 percent of the enrollment in consumer and homemaking classes is now male.

In 1978 a new course was started in West Virginia for juniors and seniors in high school, titled "Adult Roles and Functions." The purpose was to prepare both females and males for their adult lives as parents, wage-earners, consumers and citizens. The problem areas toward which the curriculum was developed were school-age pregnancies, child abuse and neglect, high divorce rate, poor nutrition and functional illiteracy as consumers. This year (1980), there are classes in 50 of the 55 counties, in 127 schools, with 136 teachers participating. Community involvement is considered a major strength of the program. Persons from mental health, health and welfare, police departments, banks, law offices and insurance agents are serving on advisory councils.

In Georgia a course in Consumer and Family Life Skills is required of all students in the postsecondary area vocational-technical schools. Students enrolled in electronics, mechanics, business education or practical nursing, for example, are required to take this course.

Future Needs

This brief review of current programs in consumer and homemaking education shows an increase in the number and variety of audiences being served, an increase in community involvement and an increased emphasis upon national concerns.

As we look to the future, we see a need for incentives to increase efforts to restructure and adapt basic programs so that consumer and homemaking education can continue to address national concerns.

Incentives are needed to expand outreach programs so that those with special needs can continue to receive assistance in developing skills for coping and adapting.

Incentives are needed to expand the FHA/HERO youth organization chapters in economically depressed areas.

At the present time, at the federal level, there is only one person assigned to working with vocational homemaking programs. If consumer and homemaking programs are to continue to serve individuals and families in our society, additional professional and support staff are needed.

VOCATIONAL EDUCATION: AN IMPETUS FOR ECONOMIC DEVELOPMENT

For almost twenty years, vocational education has been playing a significant role in some states' economic development efforts. Today most all states have some way of providing vocational training to new or expanding industries. According to a survey of states reported in Industrial Development, January/February, 1980, all 50 states provide recruiting, screening and training of labor force for new industries. The quality of vocational education programs in a given community is an important factor for many industries in determining if they will locate there. In many states training services are delivered cooperatively by vocational education and the state department for economic development. Most of training is conducted in: Community and junior colleges; technical institutes; area vocational schools; vocational-technical centers; or vocational high schools.

Since the programs are targeted at specific industries, most programs work very closely with the industries and in many instances part of the training is conducted on company premises and uses company equipment. Needless to say, placement and retention rates from these programs tends to be high, ranging upward to 95 percent.

Program Organization

Vocational Programs for economic development (They are sometimes called industrial training programs, customized training programs, start-up or quick start programs) are usually administered cooperatively by several groups. Among the state/local departments and organizations that work together for this purpose are: vocational education; economic and community development agencies; higher education; CETA; employment security; transportation; agriculture; social services; chambers of commerce; banks, utility companies and transport companies and regional development agencies.

The degree and the extent of vocational education's participation in the economic development effort varies from state to state. In some states all training for new and expanding industries is provided by vocational edcuation. In others, the task is shared with other agencies. The following table provides a description of the existing systems.

Funding

Most of the vocational education programs for economic development are funded from state and local sources. Of the 42 states from which information is available, 22 are supported 100 percent with state and local funds. Of the remaining 20, only two depend 100 percent on federal (CETA) funds. Federal support for the other 18 is 50 percent or less. Federal funds specifically for support of vocational education programs in economic development are not available. This is an important factor limiting expansion of services in this area.

Services

Vocational education programs for economic development provide a variety of services to new and expanding industries. These include: customized training -- training is specifically geared to client needs, equipment and manufacturing processes, needs assessment; curriculum development; counseling and placement. The extent of services vary from state to state.

Benefits

Apart from obvious benefits to the client industries, there are a number of benefits that accrue to the states and the local communities where training is provided, to trainees, and to vocational education itself. For the state, a well organized and well executed vocational training program is a big draw for attracting new industries and helping industries to expand. New jobs created by industries and new revenue generated by economic activity improve the tax base of the states as well as the local jurisdiction. Other services provided by state and local governments improve because of economic development which in turn creates a better business climate in the state and in the local communities.

CLASSIFICATION OF STATE SYSTEMS FOR COORDINATING VOCATIONAL EDUCATION TRAINING WITH ECONOMIC DEVELOPMENT

CLASSIFICATION CATEGORY	NO. OF STATES
1. Highly Developed (Formal) System There is high degree of coordination between economic development and vocational training functions (at least two full time staff persons responsible for needs assessment, liason, and program development); network of local staff assigned to different institutions; allocation of state dollars to support training for new and expanding industries; most of these states have curriculum centers with capacity to prepare materials quickly for different training needs; and there is proven track record of at least five years.	14
2. Moderately Developed (Formal) System There is at least one person working full time to coordinate and liaison between economic development and vocational training at state or local level; federal, state, and local funds are available for this effort, and the program has been in regular operation for at least one full year but less than five years; limited capacity for developing special curriculum materials.	17
3. Informal System There is no full time staff assigned specifically for coordination and liaison between economic development and vocational training; allocation of dollars, program development and delivery of services is on as-needed basis. There is no continuity or track record. Ad-hoc curriculum development.	19

From the data available from 27 states, it is reported that 81,430 persons were trained in 1979 for jobs in new and expanding industries. Yet, 55,061 were in just 10 states as revealed by the table on the following page. Most of these persons did not possess a marketable skill before they entered the training programs and thus would not have been able to take advantage of the industrial growth, except for the special vocational programs. Although, specific data are not available, a significant portion of the persons trained were from minority groups and many were CETA eligibles. Training programs therefore, helped many participants to rise above the poverty level by placing them in well-paying industrial jobs.

Another area where involvement with economic development has benefited vocational students is small business development. Thousands of vocational education students, instead of or after becoming wage earners for employers, strike out on their own and become self employed. These entrepreneurs in turn hire their own employees and contribute in a number of ways to the nation's economy.

Statistics are not yet available on the number of such vocational graduates, but the following example illustrates the type of current efforts of vocational education to prepare business owners:

- To combat the high failure rate of new businesses, the University of Minnesota's Agriculture Education Division began a long-term project to develop, test, evaluate and disseminate an instructional program in small business management education patterned after the university's successful farm management education effort.
  -- The program is now underway in more than 30 schools in 9 states.
  --75 percent of the enrollees continue into the second year and 80 percent or more of the second-year students continue to the third year.
  -- According to Edgar Persons, director of the Minnesota program, for each dollar spent in the program in 1974, the community received a net return of $12.

To vocational education itself, the benefit from specialized training programs in support of economic development accrues in terms of better communication linkages with the employers. Many states have hired industrial coordinators who visit industries and businesses periodically to assess their needs, not only for expansion, but also for serving regular employees. States with such coordinators have seen marked improvement in placement rates for local school programs.

Finally, providing good and successful customized training for industrial clients creates a good will among employers in general which benefits vocational education, the community and the state. There are a large number of testimonials on file with state and local vocational systems who have been involved in special training for economic development for some time.

THE NUMBER OF PERSONS TRAINED FOR NEW AND EXPANDED INDUSTRIES IN SELECTED STATES

Wisconsin	9700
Georgia	8000
West Virginia	7317
Tennessee	7476
Alabama	4800
Mississippi	4792
Oklahoma	3726
South Carolina	3545
Louisiana	3100
Texas	2605
Total	55,061

The system and know-how derived from working with new and expanding industries is being used extensively in some states to deliver customized training to existing industries to aid workers to adapt to changing work requirements. For example Wisconsin in 1978/79 served 131,749 adults in short term programs. Their state director credits these programs with holding jobs in that state. North Carolina served 252,752 adults in short term programs.

This dimension of vocational education should be recognized in federal policy and strengthened for it has the potential of (1) aiding depressed communities to attract and hold jobs. (2) mounting "quick-start" training programs for hard-to-find jobs and (3) developing programs quickly for communities with large numbers of displaced workers.

Although effectiveness of vocational education in support of economic development has been amply proven, progress of training programs has been agonizingly slow. Of the fifty states, only fourteen have been involved in this program for any length of time. Others are trying to catch up but are finding it hard to put together the resources.

Without specific federal support, states, especially those where need is the greatest, find it difficult to adequately fund the industrial training programs. In many cases, this involves building up an additional capacity (both physical plant and professional expertise) so that training can be provided on short notice, where it is required and when it is required. Selective federal investment will bring in very rich, dividends for the states and communities that need this help urgently.

WORKING WITH OTHER COMPONENTS OF THE HUMAN RESOURCE DEVELOPMENT SYSTEM

Human resource development is one of the nation's most pressing concerns. The military, administrative and social service segments of government all invest heavily in education and training. Industry, by virtue of its estimated 30 billion dollar investment in education, as reported by the American Society for Training and Development, is also obviously addressing this need. The Bell System alone anticipates offering 12,000 courses at a cost of 1.7 billion dollars this year. Clearly, industry takes the need for human resource development very seriously!

Education too must address this need in more effective manners. Both basic and advanced education play an essential role in the overall development of our human resources. So too does vocational education. Because our society flourishes when productive labor and intelligence is constructively applied, vocational education has a central role in developing these capabilities. Vocational education is a significant component of our human resource system but it is obviously not the only component. Vocational education must interact with all other components of the human resource development system.

Vocational education is already extensively involved with other providers of human resource development services. Such involvement has ranged from preliminary explorations of beneficial joint activities to formalized legal interactions and joint program delivery. The following list of examples is intended to convey a sense of the broad range of vocational education's interactions. This list should not be considered as a complete list of desirable interactions. Note that listed under each external agency/program heading are some typical examples of vocational education's involvement.

CETA: GENERAL*

- Leadership development and training programs, for state agency and prime sponsor staff, as provided by university vocational education faculty (e.g.. Missouri). Developing compatability between labor and vocational education data. Joint operation of skill centers and other special purpose facilities.

- Establishment of national research priorities relating to education and work by the Coordinating Committee on Research in Vocational Education.

- Reciprocal representation on councils between State Employment Training Councils (SETC) and State Advisory Councils on Vocational Education (SACVE). Also, reciprocal review of and comment on annual plans.

CETA: Title II, Section 202

- Coordination efforts and projects between prime sponsors and education agencies/institutions.

CETA: Title II, Section 204

- Supplemental vocational education programs at the local level, funded by CETA grants to state boards of vocational education, providing needed vocational education in areas served by prime sponsors.

CETA: Summer Youth Program

- Participation in projects to integrate vocational and academic experiences in developing basic skills required for both employment and/or advanced education.

CETA: YETP

- Occupational skill training provided by vocational education via collaborative agreements funded by the 22 percent set aside for jointly determined activities.

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*Details and a multiplicity of examples of vocational education's participation in CETA may be found in A Joint Report of the Status of Coordination Efforts Between the Comprehensive Employment and Training Act (CETA) Programs and Vocational Education Programs. Prepared by DOE and DHEW, pursuant to Senate Report # 96-247.

Cooperative planning of human resource development via state advisory councils for vocational education and SETC.

CETA/NAB (National Alliance for Business)

- Participation in Exemplary In-School Youth Program Demonstration Project in cooperation with youth-run enterprises, AVA is developing youth entrepreneurship models.

CETA: SETC

- CETA instructor training workshops conducted by university vocational education faculty.

Prime Sponsors/Prime Sponsors receiving YEDPA funds

- Participation on prime sponsor planning councils
- Participation by local advisory council and LEA representatives on the prime sponsor's Advisory Youth Council.
- Documentation of procedures for awarding academic credit for work experience.
- AVA participation in the National Governors' Association Consortium analyzing policies that have an impact on coordination.

Correctional Institutions

- Vocational training of the incarcerated, Occupational Work Adjustment programs, Work Release programs.

Vocational Rehabilitation

- Cooperation through the joint use of facilities.

National Commission on Employment Policy

- Reciprocal (with NACVE) review of plans and recommendations.

State Occupational Information Coordination Council

- Joint participation by vocational education and SETC on this council towards merging information on occupational supply and demand into a more suitable format for planning.

Fund for the Improvement of Postsecondary Education

- Participation in postsecondary bilingual vocational education of CETA eligibles (Elgin, Illinois). Participation in outreach counseling, basic skills and waste-water treatment skill instruction (Mid-West City, Oklahoma).

Industrial Training

- Use of industrial staff to train and upgrade vocational education instructors, after-hour use of industrial sites to provide vocational education, provision of customized industry specific training.

Career Education

- Dissemination of guidelines for the role of vocational education's service areas (e.g., Industrial Arts) with respect to career education, increased use of exploratory, pre-vocational experience.

Department of Energy

- Vocational training of energy-related personnel (solar installers, coal mining technicians).
- Instructor updating workshops.

Environmental Protection Agency

- Vocational automotive educator participation in intensive instructor cadre training. Development of curricula on emissions control.

Department of the Interior

- Vocational training programs for Indians.

Labor/Unions

- Training of vocational instructors, for labor organizations (plumbers and steam fitters).
- Infusion of labor concepts via Education--Work council activities.

Employment Security/Job Service

- Participation in the translation of data bases to enable student/trainee use, via NOICC/SOICC information products and/or systems.
- A number of states have placed job service personnel in local vocational schools and community colleges.

Military Services

- Vocational education credit and/or advanced Placement is given for military training.
- Projects designed to convert military instructional materials to vocational education use.
- Vocational education has used the Armed Services Vocational Aptitude Battery as one indicator of career orientation and aptitude.
- Vocational educators and guidance specialists have participated in Armed Service orientation sessions at military training installations.

Occupational Safety and OSHA/NIOSH

- Augmenting existing and newly created safety and health instructional materials to incorporate the requirements and implications of OSHA guidelines into each occupational cluster.

Department of Commerce/State Economic Development Agencies

- Contributing to state economic development thrusts by assisting in planning and training of workers for relocating and/or new industries.

Problems/Needs

With respect to participation in CETA related programs, the capacity of educational institutions, as well as other agencies providing human resource development services, must be improved. This is extremely critical to efforts that help youth with special problems. Also, technical assistance is needed to support increased vocational edcuation linkages with other groups.

Summary

The purpose of the preceding list is to document the extensive involvement of vocational education in a wide variety of human resource development programs and activities. A review of the scope and diversity of such involvement should come as a surprise to those who still view vocational education as an inwardly focused, school-based, manipulative skill training program that only addresses what are now outmoded crafts.

Vocational education will continue to strive to maximize its contribution to America's overall productive capacity by participating in the nation's human resource development thrust whenever and wherever resources and mutual goals permit.

VOCATIONAL EDUCATION'S SUPPORT SERVICES

Vocational education has evolved a complex infra-structure that ministers to its needs, and without which, all of vocational education would soon become dysfunctional and obsolete. The chart on the following page vividly illustrates the vast number of agencies, institutions and collaborative groups that provide the support services so crucial to vocational education's mission.

The infra-structure that supports vocational education may be analyzed by a variety of means, but for the purpose of this statement, five major areas of activity that support the operations of vocational education are highlighted. The major components of vocational education's infra-structure are:

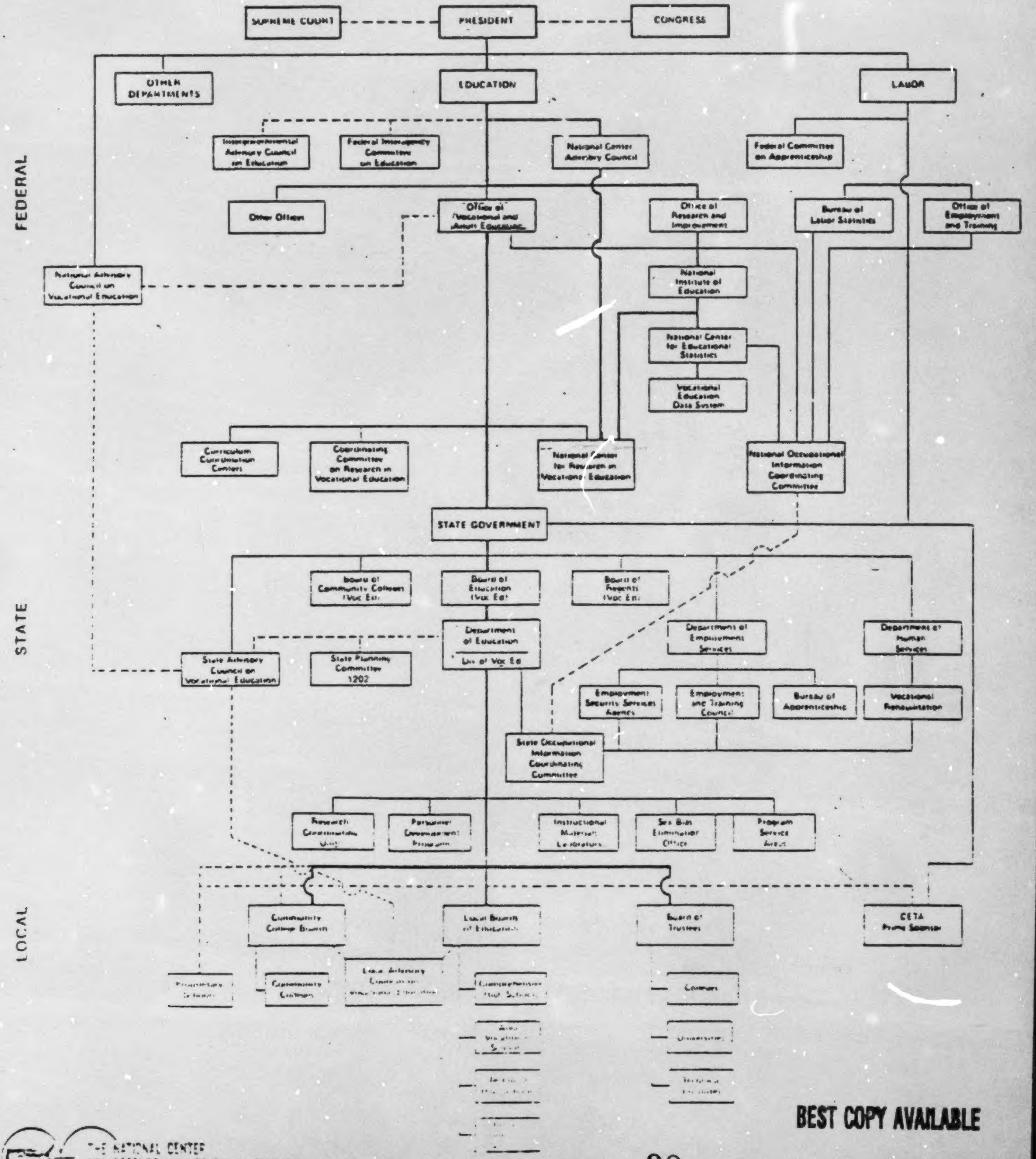
- Curriculum Development and Dissemination
- Personnel: Teacher education and graduate leadership development
- Occupational Information Services
- Record Keeping and Statistical Services
- Research and Development Activities

Curriculum Development and Dissemination

Curriculum development for vocational education is essential in the changing occupational world. Currently, much of the curriculum development is supported under the federally-administered Projects of National Significance and the State Program Improvement provisions of PL 94-482, (section 131, 132, 133.)

According to the National Center for Research in vocational education, for the two year period (1978 and 1979), states and territories reported 1,560 programs improvement projects funded under sections 131, 132, and 133. Four hundred and sixty-seven (curriculum development) projects were conducted under section 133 by four-year colleges and universities, state, local, and intermediate education agencies; private businesses and two-year, junior and community colleges.

VOCATIONAL EDUCATION IN THE UNITED STATES


SUPREME COURT
PRESIDENT
CONGRESS
FEDERAL
OTHER DEPARTMENTS
EDUCATION
LABOR
Intergovernmental Advisory Council on Education
Federal Interagency Committee on Education
National Center Advisory Council
Federal Committee on Apprenticeship
Other Offices
Office of Vocational and Adult Education
Office of Research and Improvement
Bureau of Labor Statistics
Office of Employment and Training
National Advisory Council on Vocational Education
National Institute of Education
National Center for Educational Statistics
Vocational Education Data System
Curriculum Coordination Centers
Coordinating Committee on Research in Vocational Education
National Center for Research in Vocational Education
National Occupational Information Coordinating Committee
STATE GOVERNMENT
STATE
Board of Community Colleges (Voc Ed)
Board of Education (Voc Ed)
Board of Regents (Voc Ed)
Department of Education
Div of Voc Ed
Department of Employment Services
Department of Human Services
State Advisory Council on Vocational Education
State Planning Committee 1202
Employment Security Services Agency
Employment and Training Council
Bureau of Apprenticeship
Vocational Rehabilitation
State Occupational Information Coordinating Committee
Research Coordinating Unit
Personnel Development Program
Instructional Materials Laboratory
Sex Bias Elimination Office
Program Service Areas
LOCAL
Community College Boards
Local Boards of Education
Boards of Trustees
CETA Prime Sponsor
Proprietary Schools
Community Colleges
Local Advisory Councils on Vocational Education
Comprehensive High Schools
Area Vocational Schools
Colleges
Universities
Technical Institutes

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These projects are funded and monitored by state research coordinating councils in the state's department/agency for vocational education. The National Center for Research in vocational education, as a part of the national curriculum development network and dissemination effort, has developed standardized methodologies for the development of vocational education curriculum.

Funds reserved for the Commissioner under the law are now being spent to develop new curricula in the areas of nuclear materials processing technicians and nuclear instrumentation and radiation protection. Earlier activities funded out of the Commissioner's discretionary funds include the curriculum designed to upgrade mine electricians in the use of solid state electrical controls. This curriculum is now being used by many states and in some instances has been adopted for statewide use.

A nationwide dissemination/utilization system, The National Network for Curriculum Coordination in Vocational Technical Education (NCCVTE) has been established with the participation of curriculum coordination centers, state research coordinating units and local education centers. The NCCTVE consists of six curriculum coordination centers, six regional curriculum networks, and a national council of curriculum center directors.

The six regional curriculum coordination centers are responsible for dissemination, curriculum management and liaison with the fifty-seven states and territories. While center services vary according to regional needs, typically the centers conduct workshops and training on such topics as sex equity, adapting materials for the handicapped, new and emerging occupations and using newly developed materials. They also field test and evaluate curricula, and coordinate development of new curricula.

Essential to the service is a state liaison representative who assists local vocational instructors and institutions to: Save time and money by adapting existing materials; gain access to new and innovative materials; utilize federally developed materials; avoid duplication in curriculum development efforts and to influence planning and priority setting to meet local needs.

Personnel: Teacher Education and Graduate Leadership Development

Vocational education has provided leadership to its constituents through personnel development programs at local, state and national levels. In-service training has been provided to vocational educators through state education agencies, fellowships for graduate or post graduate study, and the National Center for Research in Vocational Education's (NCRVE) in-residence and institute programs. These mechanisms provide essential opportunities for vocational education administrators and teachers to acquire the necessary leadership and teaching skills.

A subunit of the NCRVE, the Advanced Study Center, provides opportunities for advanced study in vocational education and related disciplines. Individuals (Fellows) are selected through national competition and are given full-time nine-month appointments for resident study at the center.

Fellows pursue lines of inquiry relating to such topics as the aging, bilingual programs, providing vocational services to the disadvantaged and the handicapped, and assuring sex fairness in vocational education.

Another subunit of the NCRVE is the National Academy for vocational education. It provides opportunities for vocational leaders to focus efforts on problems of national significance. During this past year, the Academy's Institute Program has conducted eighty-one workshops, seminars and conferences in twenty-eight states. The 3,000 participants came from all fifty states and represented both state and local agencies and postsecondary and various higher education institutions.

Another of the programs conducted by the academy is the in-residence program. Eighty vocational education practitioners have spent time in residence at the center to enhance their skills and to develop materials for use in the states.

Still another of the personnel programs is the vocational education leadership development program which offers individuals awards to prepare leaders for key roles. Selected through national competition, participants are able to spend us to three years in graduate or fulltime postgraduate study to acquire the knowledge and necessary leadership skills. In 1978, 155 awardees participated. After completing a leadership development program, 83 percent of the awardees obtain their first position as administrators, assistant administrators, directors, supervisors, coordinators, consultants, professors, specialists or chairpersons in vocational education. Participants have also assumed leadership roles in the Department of Education, as state directors of vocational education and as presidents of community colleges.

Funds from these programs go for individual support, and for institutional allowance. This contributes substantially to the eighteen universities' leadership develop capacity and as a result has a positive impact on participants in other programs and offerings.

The Vocational Education Teacher Certification Fellowship Program provides opportunities for certified unemployed teachers to become vocational teachers. The participants must have skills and experience in vocational fields where there is a shortage and for which they can be trained to be teachers. The program also provides opportunities for persons in business, Although this is the program's first year there are strong indications that it will be highly successful.

Preservice education programs have been conducted primarily at four-year colleges and universities under state and federal support. Continuation of these programs will be needed to prepare the additional 58,877 new teachers that are needed through 1981.

Pre-service programs need to be updated and modernized to prepare new vocational education teachers for a wider range of responsibilities.

Vocational education has programs to train or retrain teachers, supervisors and trainers to teach courses for new and emerging occupations. In-service training to improve the quality of instruction and supervision, or to overcome sex bias is also made available. Some states have provided for exchange programs with business, industry and agriculture. Some have prepared journeymen in skilled trades or occupations to teach. Others have trained vocational education professionals to work with limited English-speaking ability people and many have provided short-term or regular session institutes to improve the qualification of professionals entering or reentering vocational education in new and emerging occupations.

Occupational Information Services

Because of the essential link between vocational education and the world of work, and because of the necessity for valid occupational data to guide youth through their critical decision-making years, considerable importance has been ascribed to occupational data. Furthermore, recognition of the enormity of such a task led the Congress to establish a National Occupational Information Coordinating Committee (NOICC) and State Occupational Information Coordinating Committees (SOICCs). To date, these have engaged in planning, coordinating and producing occupational information in a form useable by vocational education service providers.

NOICC involves the four agencies which directly or indirectly produce and use the majority of the information which describe education and work. It provides for a system of occupational information helpful to potential users that includes educators, administrators, guidance and counseling personnel, employers, and the people who are involved with preparing themselves for occupations and careers.

- The need to reconcile vocational education data systems with the larger Department of Labor occupational information system.
- The need for more institutionalization of the labor market information program (DOL and state employment security agencies) to insure timely and continuing occupational demand information at state and regional levels.

Record Keeping/Statistics/Reporting

This component of vocational education's infra-structure is designed to address accountability, information-based decision making and the requirement for comprehensive, accurate and timely data. The Vocational Education Data System (VEDS) was established to supply just such information. VEDS is comprised of two major functional elements -- a reporting system flowing data aggregated at the state level to the federal level and an accounting system setting record keeping standards at the local or state level for program audit, planning an evaluation purposes, as mandated in PL 94-482.

While a variety of technical and specific, as well as policy level, problems remain, it is clear that VEDS is a significant improvement over past systems. Recognition of and action to implement more reliable local data collection practices is still needed, however.

Research and Development

Vocational education's research and development thurst is largely targeted on program improvement. The nation's vocational education programs must have a strong capacity for improvement, self renewal and redirection if they are to be responsive to the needs of individuals and society in a changing world. This capacity is needed both at the state and national level.

An overview of the national approach to program improvement is shown on the chart on the following page. Through programs of National Signifance funding is provided for the National Center for Research in Vocational Education, NOICC has designed conceptually the occupational information system called for in law. This has been published in "A Framework for Developing an Occupational Information System." The design of the OIS is being refined and expanded to provide strategies and techniques for its implementation, which will be endorsed and supported by NOICC's statutory agencies. This will be available in January 1981 in a three-volume publication called the OIS Handbook.

Basic Assistance Grants to SOICCs (mentioned above) have facilitated the preparation and improvement of occupational demand/ supply reports, made such reports available for an increasing number of sub-State areas, helped pay for occupational employment data collection or processing in at least 10 States, provided for the preparation of directories of sources of occupational and educational information, and made possible surveys of data users to determine their information needs.

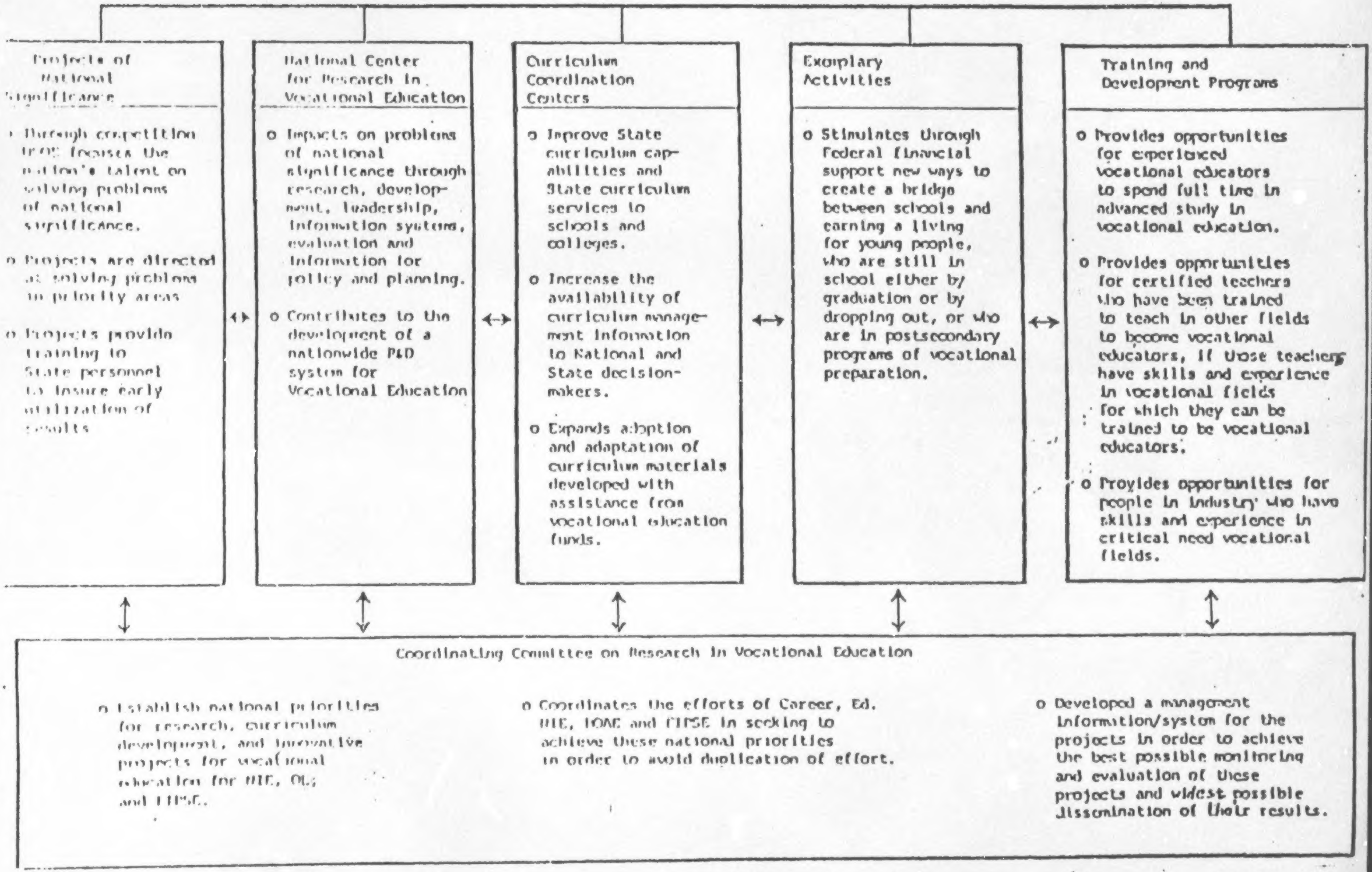
- SOICCs in a growing number of states are receiving funds from sources other than NOICC to facilitate the implementation of planned activities and to meet special data needs of individual statutory agencies, including vocational education.

- SOICC meetings and the meetings of their technical subcommittees in many states have provided for an interchange on a recurring basis among vocational educators and representatives of economic development agencies, budget and planning agencies, higher education and among others, industry and labor.

In addition to noting the many accomplishments and contributions of NOICC and the SOICC's, some attention must be turned to the factors that restrain the rate of progress towards further achievements. Some such crucial factors are:

- Stability in the occupational employment statistics collection funding mechanism. This would preclude jeopardizing the long-term goals for data collection and utility.

NATIONAL SYSTEM OF PROGRAM IMPROVEMENT IN VOCATIONAL EDUCATION



Projects of National Significance

- o Through competition USOE focuses the nation's talent on solving problems of national significance.
- o Projects are directed at solving problems in priority areas
- o Projects provide training to State personnel to insure early utilization of results

National Center for Research in Vocational Education

- o Impacts on problems of national significance through research, development, leadership, information systems, evaluation and information for policy and planning.
- o Contributes to the development of a nationwide R&D system for Vocational Education

Curriculum Coordination Centers

- o Improve State curriculum capabilities and State curriculum services to schools and colleges.
- o Increase the availability of curriculum management information to National and State decision-makers.
- o Expands adoption and adaptation of curriculum materials developed with assistance from vocational education funds.

Exemplary Activities

- o Stimulates through Federal financial support new ways to create a bridge between schools and earning a living for young people, who are still in school either by graduation or by dropping out, or who are in postsecondary programs of vocational preparation.

Training and Development Programs

- o Provides opportunities for experienced vocational educators to spend full time in advanced study in vocational education.
- o Provides opportunities for certified teachers who have been trained to teach in other fields to become vocational educators, if those teachers have skills and experience in vocational fields for which they can be trained to be vocational educators.
- o Provides opportunities for people in industry who have skills and experience in critical need vocational fields.

Coordinating Committee on Research in Vocational Education

- o Establish national priorities for research, curriculum development, and innovative projects for vocational education for NIE, OE, and FIPSE.
- o Coordinates the efforts of Career, Ed. NIE, BOAE and FIPSE in seeking to achieve these national priorities in order to avoid duplication of effort.
- o Developed a management information/system for the projects in order to achieve the best possible monitoring and evaluation of these projects and widest possible dissemination of their results.

Status of Vocational Education: 1978 (USOE) the six regional Curriculum Coordination Centers, the National and State Occupational Information Coordination Centers, and a number of nationally significant research, development and personnel development projects which provide information and educational materials for local program improvement.

The provisions for state program improvement have helped states conduct research and sponsor innovative and exemplary programs and curriculum development projects. This program also helps to support counseling and guidance, personnel development, and sex equity efforts. State Research Coordinating Units and state vocational education laboratories coordinate the majority of the activities.

A well integrated program improvement effort must include research and process and material development.

The quest for program improvement through a sustained federal commitment to research is vital to maintaining quality programs. Historically, the federal role of vocational education has always been one of promoting excellence and quality.

Summary

The infra-structure supporting vocational education is comprised of curriculum, occupational information, records and data, personnel development and research and development components. Each of these components is implemented in a manner that results in direct national, state, and local benefits. Many significant activities are conducted at the NCRVE, but it is also vitally important to maintain a larger more decentralized base to supply vocational education support services.

Personnel capacity, in terms of both numbers and capability, also is a critical need. Vocational education's future will depend upon the supply of sufficient numbers of new professionals at all levels, as well as the instructional capacity to train them. This will be one of the important challenges during the 1980's.

PUBLIC VIEWS ON VOCATIONAL EDUCATION

Any description of the vocational education enterprise must take into account the attitude of the general public. Public support for vocational education can be seen in the magnitude of state and local tax dollars that support programs in the public schools. This chapter will address, however, the overwhelming support expressed for vocational education in a variety of recent studies, polls and surveys. Clearly, the positive attitudes expressed by employers, parents and students offer a first-hand testimony to the value of vocational education.

Employers

Recent studies in Ohio and Georgia indicate that more than 75 percent of employers surveyed prefer to hire vocational graduates over non-vocational graduates. Studies by the Iowa Department of Public Instruction document not only employer satisfaction with vocational education graduates but also employer preference for vocational edcuation students.

- Evidence of employers' high regard for vocational education may be found in the following comments from business and industry representatives.

> Personally, I think vocational education is probably the best-spent tax dollar that we have in the whole area, and I mean from the federal government on down. The vo-tech school is one of the most amazing things I've seen. They've done a fantastic job giving the youngsters what they need in an increasingly technical society.
>
> --Mike Vater, Vater Farm Implements
> Enid, Oklahoma

> We rarely hire anybody at the entry level who has not come through a co-op program because the co-op students are far and away better than other people just out of high school who haven't had the training. We stick to our co-op students.
>
> --Wanda Albright, Administrator
> Saul, Ewing, Remick and Saul
> Philadelphia, PA

> With all of the government work programs and all of the money spent on these over the years I would say vocational education is the one that should be expanded. So many young people are not planning to go to college but they were not advised properly. More money should go to better guidance and counseling by students and the parents. Parents need more information about vocational education. We let too many people go through college preparation progam, never intending to go to college. They marry and try to raise a family and they do not know anything about jobs. I have interviewed too many 18 year olds who have no idea what kind of a job they want.
>
> --Ken Amick
> Manager of Industrial Relations
> for Monarch Sidney
> Sidney, Ohio

> Graduates of vocational programs are enthusiastic, sincere, cooperative, wholesome and helpful. They have good attitudes.
>
> --Mr. Rollins
> Skyline Industries
> North Carolina

Graduates/Vocational Education Students

The Digest of Educational Statistics, 1979 reported summary statistics on the educational experience and personal aspirations of high school seniors as surveyed in 1972. Of the major weaknesses attributed to the school attended, the second, third and fourth most heavily weighted responses all dealt with a lack of vocational education. They were:

Rank	Weighted Response by Percentage of Students	Major School Weakness
2	77%,	School should help students find jobs when they leave school
3	71%,	School should have placed more emphasis on vocational and technical programs
4	68%	School did not offer enough practical work experience

Public Views

The most recent Phi Delta Kappa Gallup Poll reported in the September, 1980 Kappan documents that the public's overall confidence in the schools' ability to serve public needs was relatively high. In fact, the only American institution with a higher rating was the Church. All other possible choices (the country, local government, state government, national government, labor unions, big business) were rated lower.

The *Kappan* survey also found that 64% of the people polled favored the addition of personnel to help students and recent graduates get jobs. Moreover, more than half the respondents chose vocational education from among 13 areas to which the new Department of Education should give special attention in the next five years.

Public response identified these priorities for schools:

1. Basic Education (reading, writing, arithmatic)	69%
2. Vocational Training (training students for jobs)	56%
3. Improving teacher training and education	46%
4. Helping students chose careers	46%

A 1979 national public opinion poll of over 4,000 adults yielded results most favorable toward vocational education. Eighty-five percent of the respondnets indicated that it was veryimportant for the schools to provide students with opportunities to learn occupational skills. Only .2% indicated that such opportunities were not important at all.

A similar 1979 survey of 830 National School Board Association members yielded ratings of 57.1% (very important) and 35.7% (important) supporting the important of vocational education in the schools. Only .1% indicated the opportunity to learn occupational skills was not important at all.

When asked whether the schools in their district should give more or less emphasis to career preparation through vocational education programs, the public surveyed responded with a 77.1% rating for "more emphasis." Although the schoolboard members surveyed were considerable less supportive, 43.1% did in fact call for "more emphasis." The bulk of the balance felt that the "present emphasis was appropriate."

In speaking for the people of West Virginia, Governor John D. Rockefeller IV pointed out: "The program of vocational education has proven to be a vital link in the chain of economic development in West Virginia."

FINANCING VOCATIONAL EDUCATION

Declining Federal Support

Financing of vocational education programs has been a local, state and federal effort since the passage of the first vocational education law by Congress in 1917. Unlike some other federal programs, state and local governments contribute willingly to fund their share of the cost of vocational education. Unfortunately, however, the federal share of vocational education costs has declined so an ever increasing proportion of program costs is borne by local and state governments.

The federal investment in vocational education has increased from $50 million in 1963 to approximately $600 million in FY 78. Currently it totals $784 million. While this indicates that the federal investment is 12 times more now than in 1963. these figures have not kept pace with increases in local and state funds. In 1963 state and local funds allocated to vocational education were $232 million and have increased to over $5 billion currently. This is approximately 22 times the investment as compared with that in 1963.

The situation is even more revealing when federal investments are considered vis-a-vis increasing enrollments in vocational education programs. Between 1965-1976 vocational education enrollments increases by 170%. While per-student expenditures by state and local governments increased from $187 in 1972 to $346 in 1979, federal expenditures per vocational students dropped from $40 to $34

A Policy of Neglect

The current federal posture toward vocational education can best be described as on of neglect by policymakers. In the absence of a clear leadership commitment, the natural policy that has emerged is to hold even or to reduce the level of federal support for vocational education. This is evident from the tables that follow. Since 1972, based on purchasing power of the 1967 dollar, the federal investment in vocational education per individual has declined from just over $32 to less than $16 per individual in 1979. In the same period state expenditures per vocational student increased from $149 to $159 to keep pace with inflation.

It is argued by some that state and local support has made up the difference in the decline of federal support but unfortunately, this is not true. State and local support has only remained constant. Most state and local governments have lived up to their part of what they believed to be a partnership program. In such a program, federal dollars would, keep the system current and improve it, while state and local funds would maintain it. The shortage of federal funds has resulted in considerable deterioration in existing programs.

In recent years at the federal government has supported a declining proportion of program costs, it has issued a greater proportion of program requirements. More and more of the burden of compliance with these federal requirements has fallen on the state and local budgets. This trend is evident from the following:

Handicapped and Disadvantaged The last two authorizations have been increasingly prescriptive in how federal vocational education funds must be used for handicapped and disadvantaged students. In addition, the excess cost, matching and maintenance of effort requirements for these two set-asides have encumbered a significant portion of additional state and local funds available for vocational education.

Federal, State and Local Expenditures on Vocational Education

	Enrollment Total(000)	Total Expenditures	Per Student	State & Local Expenditures	Per Student	Federal Expenditures	Per Student
1972	$11,711	$2,660,759	$227	$2,194,730	$187	$466,029	$40
1973	12,072						
1974	13,556	3,433,820	253	2,965,623	219	468,197	34
1975	15,340	4,037,277	263	3,501,137	228	536,140	35
1976	15,346	4,713,577	307	4,170,366	272	543,211	35
1977	16,464	4,962,555	301	4,428,945	269	533,611	32
1978	16,705	5,673,527	340	5,174,421	310	499,106	30
1979	17,268	6,569,743	380	5,982,716	346	587,027	34

Federal expenditures Per Student in Constant (1967) Dollars

Year	CPI	Federal Expenditure (000) Acutal	Real	Per Pupil Expenditure ($) Actual	Real
1972	125.3	466,029	371,930	40	32
1974	147.7	468,197	316,991	34	23
1975	161.2	536,140	332,592	35	22
1976	170.5	543,211	318,598	35	21
1977	181.5	533,611	294,000	32	18
1978	195.4	499,106	255,428	30	15
1979	217.4	587,029	270,021	34	16

State Expenditures Per Vocational Student in Constant (1967) Dollars

Year	CPI (1967=100)	State Exp.(000) Current	State Exp.(000) Real	Per Enrollee Expenditure $ Current	Per Enrollee Expenditure $ Real
1972	125.3	2,194,730	1,751,578	187	149
1974	147.7	2,965,623	2,007,865	219	148
1975	161.2	3,501,137	2,171,916	228	141
1976	170.5	4,170,366	2,445,957	272	160
1977	181.5	4,428,945	2,440,183	269	148
1978	195.4	5,174,421	3,061,777	310	159
1979	217.4	5,982,716	2,751,931	346	159

Special Services The 1976 reauthorization placed additional equity, access, and evaluation requirements on vocational education. These programs require extensive services beyond actual skill training. However, federal appropriations have not been increased to match these requirements.

Vocational Education Data System The cost of fully implementing the Vocational Educational Data System (VEDS) may equal the total increase in federal appropriations for vocational education since 1976. This requirement to meet federal data needs has place massive data collection responsibilities on states and local school districts. It is unlikely, however, that it will provide much timely and useful data for state and local planning and program development.

The shrinking federal investment in vocational education has been exacerbated by these rapidly escalating expectations for training target populations and providing data. These conditions have, in fact, served, to significantly diminish the incentive value of federal funds for vocational education. When states and local districts overmatch by an average of 9 to 1, it is unrealistic to expect them to undertake new or to expand existing programs and services. The federal investment that is available and the accompanying data requirements growth and expansion in vocational education.

Previous sections of this paper illustrate the need for federal investment to enable vocational education to contribute to the solution of national concerns. Vocational education can have a significant contribution in making youth more employable, increasing the productivity of our adult workforce and disseminating new energy technology. However, the federal investment must be increased to match federal expectations. Original federal investments were made to encourage states and local districts to provide quality vocational education programs by covering a portion of the extra costs for equipment, program development, staff inservice, and instructional materials. Much of these funds, however, have been reallocated in recent authorizations. The reallocation has been made to serve special target groups and to provide data for federal needs. As a result of this method of funding new priorities, the basic program of vocational education has suffered.

The Need For Federal Funds

Without federal funds many communities will simply be unable to provide the type of specialized services that youth and adults most in need of help require. Federal funds have been especially crucial in meeting the special educational needs of disadvantaged and handicapped students, expanding the enrollment of members of minority groups and generating increased interest in nontraditional career choices among both men and women. Yet these funds are insufficient to meet these important needs. With adequate federal funding vocational education can also provide the much needed occupational training to inner city youths and adults. Additional training stations can be built only if federal support is increased to provide a more equitable share of the burden. Urgency of the problems can hardly be overemphasized.

SUMMARY

The Process

The American Vocational Association (AVA) has engaged in a massive study of vocational education in preparation for making recommendations for the 1982 reauthorization of the Vocational Education Act. The study was conducted by ten legislative study teams composed of 100 leading vocational educators from around the country. In addition, leaders from business, industry and labor participated on several of the teams. The teams studied the following topics: the basis for federal investment in vocational education, basic state grant programs, special populations, youth and adults, programs of state and national improvement, planning and evaluation, sex equity, financing vocational education, administration of vocational education, and consumer and homemaking education.

Attention was given to the contemporary influences of social, economic, technological and educational changes as they influence the future course of vocational education.

The teams found that the right to engage in employment-related education and training has been perceived as a basic right for the nation's citizens. Yet, this freedom has been neglected, poorly supported, fractured in its administrative structure, unnecessarily arbitrary and often diminished by discrimination. Limited opportunities for the poor and disadvantaged to enroll in an appropriate employment-related education and training program has led to inadequate development of human potential and poor career choices.

The institutional structure of employment-related education and training, including vocational education and the Comprehensive Employment Training Act, is weak. Coordination of present effort is not a solution. A new approach must be developed.

A Statement of Purpose for Vocational Education Legislation

The American Vocational Association believes that the primary purpose of federal vocational education legislation is to enable the federal government to cooperate with states in improving and expanding quality employment-related education and training, including programs of homemaking, which provides individuals with the skills that will contribute to economic stability, enhance local, state and national economies and to address other appropriate national concerns. This purpose enables states to:

- Support and strengthen the relationship between education and work, and work and education, by encouraging states to accept their constitutional responsiblities for quality employment-related education and training through authorizing legislation.
- Maintain a ready response capability for short and long-term demands for strengthening national defense.
- Address the national concern for improved productivity in the workplace.
- Use quality employment-related education and training for attracting, creating or retaining jobs in economically dperessed areas.
- Develop an education and training response for conserving, generating, converting and utilizing energy.
- Focus on the goal of full employment, including self-employment, by addressing the need for a qualified and responsive supply of labor.

To accomplish this purpose, the federal legislation should authorize federal grants to states to support their cooperation with agencies and institutions of the state to:

1. Make quality employment-related education and training available, along with the freedom to choose such education and training, to persons of secondary school age or above, in all communities of the state, who are in school or have

interrupted, discontinued or completed formal education and need preparation to enter the labor market, and those who have partially or fully entered the work force, but need to update, upgrade or alter work-related skills and are served by secondary schools, postsecondary institutions, adult programs, and work-site training.

2. Initiate, extend, keep current and improve the scope and quality of employment-related education and training.

3. Strengthen the capacity of communities and institutions to provide quality employment-related education and training.

4. Conduct quality employment-related education programs that will overcome all forms of discrimination of disadvantagement related to sex, race, age, national origin, physical or mental handicap, educational and economically disadvantaged, and geographic location.

5. Provide necessary special needs services including, but not limited to, guidance and counseling and basic education skills and to cooperate with appropriate agencies for other needed services, such as health care and financial aid for those who need such services to access and make reasonable progress in the pursuit of quality employment-related education and training, so that individuals and groups will have access to and the freedom to choose programs that will prepare them for projected or anticipated work roles which are suited to their needs, interests, abilities and the conditions of the employment market.

How This Purpose Differs from the Current Legislation

One of the primary differences between this purpose and the current legislation is that it shifts emphasis from the federal government's role in assisting states to improve planning to cooperating with states to improve and extend all aspects of employment-related education and training by:

a. encouraging states to accept their constitutional responsibility;

b. enabling states to develop a ready response capability for short- and long-term demands of national defense;

c. addressing the problem of worker productivity;

d. making vocational education an effective tool for attracting, creating and holding jobs in depressed communities;

e. enabling vocational education to address national energy goals; and

f. allowing states to effectively address the problem of unemployment.

This purpose also shifts the emphasis from maintaining programs as they are to keeping them current with changing technology and national needs. The word current here is used to apply to staff, curricula, instructional media and laboratories.

In addition, this shift in focus for national legislation would recognize a need for federal assistance in strengthening the capacities of communities and institutions to provide occupational employment-related education and training.

Finally, this purpose would place extra emphasis on giving students freedom to choose programs and to have access to those programs.

To accomplish this purpose, the American Vocational Association believes the new legislation should focus on eight major themes:

1. Depressed Communities We believe the reauthorized act should target rural and urban depressed communities for the specific purpose of developing the capacity of these communities to develop their people. The specific services should include: strengthening institutional capacity, providing customized training services for new and existing industries, allowing communities to tailor programs to fit the community needs. The act should define what is meant by "depressed community".

Such a title will require a major funding level because there is not quick-fix answer to the problems of depressed communities, as outlined by E.F. Shumacher in Small is Beautiful:

> The primary causes of extreme poverty are in certain deficiencies in education, organization and disciplines. Development does not start with goods; it starts with people and their education, organization and discipline . . . (D)evelopment . . . requires a process of great subtlety. Organization does not jump. It must gradually evolve to fit changing circumstances and much the same goes for discipline. All three must evolve step by step and the foremost task of development policy must be to spend this evolution.

2. Keeping Programs Current Just as industry must revitalize itself to meet changing technological needs, so must the vocational education laboratories curricula, instructional media and staff be revitalized. In addition, vocational education must keep pace with dramatic changes that are projected for business and industry in the future. Declining federal participation has contributed to deterioration of vocational education's ability to remain current. Money is needed to meet the high costs of programs that have not yet been implemented due to years of high-cost technology and to expand other traditional programs in which increased job demands exist. This program must be an integral part of the Basic State Grant Program.

3. National Concerns There should be a section in the legislation setting aside money to give states the flexibility to address needs the system cannot handle under normal operating procedures. These problems are usually triggered by national events that place an undue burden on specific local areas under special circumstances. These concerns include: to deliver customized training for new and expanding industries especially in depressed communities; to mount "quick-start" programs for hard-to-fill jobs; to reach out to unemployed adults and youth heavily concentrated in certain communities; to mount programs for displaced workers and for immigrants crowding into certain communities in such numbers that normal programs cannot serve them; to provide special services to large and small industries having to retool as part of economic revitalization efforts; and to locate and develop new and existing energy supplies.

4. Equity There are special problems associated with providing programs of vocational education to populations that have been discriminated against by society in the past. There is a need for a set-aside to reach out and enroll disadvantaged and handicapped people into the mainstream of vocational education programs. The major problem with the current legislation is the requirement that local areas match the excess costs of funds to pay for special support services such as counseling, job placement and equipment, required to serve these special populations.

There is also a need for money to provide information and supportive counseling to help enroll women and minorities in nontraditional programs of vocational education. While the specific needs of each group is different, the approach to bringing these two groups in are the same.

In addition, money is needed to recruit and train women and minorities to staff vocational education programs. Current staffing levels are out of line with population proportions, and a concerted effort is needed to insure that staffing is more equitably distributed along racial and sex lines.

5. State and National Improvement Targeted money is needed to allow states to continue to improve programs of vocational education. In addition, money is needed for programs of national improvement that provide resources and leadership to revise, improve and reform the programs of vocational education where necessary, particularly to develop the potential of programs to address national priorities. There should be an emphasis on updating the occupational knowledge of teachers to coincide with technological changes.

6. Bridges Between Vocational Education and Other Human Service Systems Numerous federal, state and local agencies fund and/or operate programs to prepare people for work. Vocational education is the oldest of these programs. Over recent years, however, other employment and training-related efforts have sprung from federal departments including Labor, Commerce, Energy, Transportation and

Defense, as well as from bureaus concerned with apprenticeship, special needs and rehabilitation, small businesses, minorities, higher and career education, and women. Linkage is required among the diverse training programs to address the following problems: military and defense, foreign trade and the displacement of American workers, demand for advanced, technologically skilled workers; labor market data on supply and demand; special needs populations; small and minority businesses; depressed communities; customized training and basic skills.

7. Mismatch Between Appropriations and Expectations In recent years, vocational education has come to be viewed as a vehicle for solving national problems and rightly so. The 1976 legislation charged the vocational education system to solve many of these national problems. Yet federal contributions to vocational education have decreased from 19 percent in 1969 to 9 percent in 1976. In addition, vocational education's share of the total federal budget for training and employment has decreased from 18.83 percent to 7.53 percent. And, vocational education's share of the federal expenditure for all education has decreased from 9.2 percent to 5.5 percent in 1980. It is critical that the federal expectation for vocational education be matched with an appropriate federal investment in the programs if vocational education is to meet the challenge it continues to face in helping to contribute to the resolution of the nation's problems.

8. Consumer and Homemaking Education Consumer and homemaking education has a role in preparing both males and females for the occupation of homemaking, thereby improving the quality of life for individuals and families. These programs can play a role that crosses other occupational lines to help special groups in a variety of ways: parental care, child care, and family relations for teenage parents; programs in money management, preparation of low income meals and community services for the elderly; courses in both consumer and homemaking and wage earning for incarcerated persons; courses and services for

displaced homemakers; mobile laboratories to migrant labor camps; classes in grooming and personal care and simple meal preparation for handicapped persons and classes in meal preservation and food storage in community centers for people in economically depressed areas. To fulfill this role, consumer and homemaking education programs must be strengthened and expanded with adequate financial support at the federal level.